

New impacts on industrial relations: internationalization and changing production strategies

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Shigeyoshi Tokunaga, Norbert Altmann,
Helmut Demes (eds.)

New Impacts on Industrial Relations

Internationalization and
Changing Production Strategies



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The editors would like to express their sincere thanks to their colleagues Nomura Masami (Okayama University), Hiramoto Atsushi (Tōhoku University) and Bettina Post-Kobayashi (German Institute for Japanese Studies). As members of the organizing committee they substantially contributed to the conception and organization of the conference in Sendai.

The difficult task of improving and adjusting the different forms of English in the papers – none of the authors and editors being native speakers – has been carried out skillfully, with great effort and patience by Ms. Susan Schmidt, Ms. Elisabeth Jakubassa and Ms. Kate Backhaus. Ms. Jakubassa also assisted the editors by typing some of the papers and making alterations and corrections on the computer. The editors are most grateful for their help.

The responsibility for any remaining mistakes or errors is, however, with the authors and editors.

In accordance with convention in Japan, the surnames of Japanese individuals are written first, followed by the given name without a comma separating them.

FOREWORD

In addition to the various forms of Japanese management, the often uniquely regarded Japanese relationships between employers and employees (industrial relations) are an area, which is of equal interest, both to the Western academic and economic worlds, and about which a great number of studies have been conducted. Even in the early 1980s two international conferences were jointly organized by Japanese and German scholars (in 1982 in Sendai, Japan and in 1983 in Darmstadt, Germany), at which industrial sociologists and economists, mainly from Japan and Germany, discussed the systems of industrial relations from a comparative perspective.¹

In the years since the last of these two conferences many things have changed. Nowadays the discussions amongst industrial sociologists are about the *reprofessionalization of work and the end of the division of labour*, about *industrial districts* and also particularly about *new production systems*. Industrial relations in all countries are strongly influenced by the increasing world economic integration through the emergence of supra-national economic zones and by the expansion of world trade, as well as foreign direct investment. It was a result of these deliberations that the German Institute for Japanese Studies developed the plan to once again bring together Japanese and German specialists in a conference on this field of study.

As was the case in the previous conferences, the aim was not only the exchange of results of academic research, but it was of great importance to the organizers that mutual cooperation beyond the limits of the conference should come about between the colleagues of various nations. Even the first conferences provided the initiative to work together. Both the bibliographies of the various articles and also the biographies of the authors are evidence of this. It was hoped that this cooperation would be deepened and extended, and so not only participants from previous conferences, but also other, particularly younger industrial sociologists, were invited.

Communication between experts of different countries is not without difficulties. The *lingua franca*, English, was not the native language of any of the speakers and of course the level of English among the individual

¹ Tokunaga, Shigeyoshi and Joachim Bergmann (eds.) (1984): *Industrial Relations in Transition – The Cases of Japan and the Federal Republic of Germany*. Tōkyō: University of Tokyo Press.

Bergmann, Joachim and Shigeyoshi Tokunaga (eds.) (1987): *Economic and Social Aspects of Industrial Relations – A Comparison of the German and the Japanese Systems*. Frankfurt/New York: Campus Verlag.

participants varied greatly. However, the organizers decided against translating into the various languages, since, as already mentioned, cooperation was to be encouraged and working together on a daily basis through an interpreter would hardly be possible.

It also was an aim of the organizers to present results of current empirical work, which was still unknown outside the home country. For the realization of this fifth International Symposium of the German Institute for Japanese Studies, the fruitful cooperation of the national Tōhoku University in Sendai could be ensured. At this point I would particularly like to thank Dr. Nishizawa Jun'ichi (Professor Emeritus and President of Tōhoku University) as well as Dr. Tokunaga Shigeyoshi (Professor at the Faculty of Economics of Tōhoku University) and his assistants for all their support. The organization of the conference was in the capable hands of Dr. Nomura Masami (Professor of Economics at Okayama University), Hiramoto Atsushi (Professor at the Faculty of Economics of Tōhoku University), Dr. Norbert Altmann (Chairman and Research Director of the Institute for Social Research, Munich) and Dr. Tokunaga who chaired the organization committee. For their contribution we are also most grateful. On the part of the German Institute for Japanese Studies, the research fellows Helmut Demes and Bettina Post-Kobayashi were members of this committee.

The conference took place between 14th and 16th October 1991 and brought together 19 speakers from Japan, the Federal Republic of Germany and other European countries. A further 40 participants from economic and political fields took part in the discussions.

The organization committee selected three main subject matters, which they believed to be particularly worth discussing:

1. What influence has the rapid internationalization of the national economies and companies on industrial relations? It was intended that the focus should be on Japanese companies, which in the past ten years have been investing in many countries of the world and whose branches are testing ground for the transferability of production systems to other countries.
2. What influence have the new production systems which include the whole value adding process? Here the discussion should focus on the organization of supply and effects on industrial relations in the subcontracting industry, an aspect which up to now has been neglected.
3. Finally, the questions had to be asked: what new possibilities arise in the setting and development of labour standards; how can precarious labour conditions be fought and negative effects on employees be alleviated, and what chances and dangers arise for working standards from new political developments?

This publication of revised conference papers is divided into five parts. In the first part, two of the organizers, Dr. Tokunaga and Dr. Altmann, have arranged the questions theoretically and link them with the results of the first two conferences. The following three parts deal with the questions mentioned above. In the fifth and final part, the question will be raised, with reference to the previous essays, as to what extent the currently much discussed concept of "lean production" can be a model for the next century.

I am convinced that this volume represents a valuable contribution to a better understanding of the Japanese economy and society in Germany and in the world, and hope that it gives rise to further discussion. For this reason I am particularly glad that, thanks to the efforts of the editors, these proceedings could be published so quickly.

Josef Kreiner

Director

German Institute for Japanese Studies

CONTENTS

PRODUCTION STRATEGIES AND INDUSTRIAL RELATIONS IN THE PROCESS OF INTERNATIONALIZATION

<i>Convergence of Rationalization – Divergence of Interest Representation</i> Norbert ALTMANN	15
<i>Internationalization of Economic Activities and Industrial Relations – with Special Reference to the Recent Strategies of Large Japanese Corporations</i> TOKUNAGA Shigeyoshi	39

INTERNATIONALIZATION AND INDUSTRIAL RELATIONS

<i>Internationalization Strategies of Japanese and German Automobile Companies</i> Ulrich JÜRGENS	63
<i>Industrial Relations and Management in Japanese Companies in Europe</i> KUMAZAWA Makoto	97
<i>Japanese Personnel Management Transferred: Transplants of the Electronic Industry in Asia and Europe</i> NOMURA Masami	117
<i>Works Councils and Enterprise-Level Industrial Relations in German Transplants of Japanese Firms</i> Christoph DEUTSCHMANN	133
<i>Contradictions in the Team Concept: Auto Transplants and Labour Relations in North America</i> Christian BERGGREN and Torsten BJÖRKMAN	149

SUBCONTRACTING AND RATIONALIZATION

<i>Systemic Rationalization, Subcontracting Strategies and their Impact on Labour in the Federal Republic of Germany</i> Dieter SAUER	181
<i>Development Networks in the Automobile Industry: New Trends</i> IKEDA Masayoshi	207
<i>Subcontracting Strategies of Japanese Companies in Europe and Asia: A Case Study of the Electronics Industry</i> HIRAMOTO Atsushi	225

<i>Problems of Industrial Relations at Plant Level in the Component Supply Industry in the Federal Republic of Germany</i>	
Reinhard DOLESCHAL	243
<i>Price Setting and Supplier Selection System in the Japanese and Western Auto-Supply Industry</i>	
SEI Shōichirō	259

TOWARDS THE FORMATION OF LABOUR STANDARDS

<i>Labour Standards in the International Economy: Challenges and Perspectives</i>	
Werner SENGENBERGER	281
<i>The Formation of Labour Standards in the Single Market</i>	
Gerhard BOSCH	311
<i>The German Unification Process and the Organization of Trade-Union and Co-Determination Structures in East Germany</i>	
Volkmar KREISSIG	341
<i>The Role of Unions in Innovative Small and Medium-sized Enterprises: A Case Study of Flexible Specialization in Emilia-Romagna</i>	
Vittorio CAPECCHI	365
<i>Working Conditions in Small and Medium-sized Enterprises in Japan: The Case of Ōsaka</i>	
TAMAI Kingo	393
<i>Women and Japanese Society Today: Political Measures with Respect to Marginalized Labour Force</i>	
ŌSAWA Mari	411
<i>The Careers of Technical Specialists in Japan and in Western Countries</i>	
Angelika ERNST	433
<i>The Formation of Rengō and Strategies of the Japanese Labour Movement for the Development of Labour Standards</i>	
TAKAGI Ikurō	453

CONCLUDING REMARKS

<i>The Japanese Production Mode as a Model for the 21st Century?</i>	
Helmut DEMES	469
<i>Contributors to this Volume</i>	489

PRODUCTION STRATEGIES AND INDUSTRIAL RELATIONS IN THE PROCESS OF INTERNATIONALIZATION

CONVERGENCE OF RATIONALIZATION – DIVERGENCE OF INTEREST REPRESENTATION

Norbert Altmann

ABSTRACT

The first part of this introductory essay establishes a link to industrial sociological issues of the early eighties. At that time, the debate centered around questions of internal company rationalization (the introduction of microelectronics) and the "Japanization" of the German system of worker representation. Since then rationalization strategies and measures have taken a new direction: They are oriented toward productivity increases in the entire value added chain, from procurement of materials and parts supply to the manufacturing of the end product all the way to distribution; the strategies are based on information technology which effect an international and global systemic integration. Traditional structures of worker representation therefore become obsolete. However, new approaches and opportunities arise for union policy and a new politicization of worker representation, resulting in a worldwide convergence of rationalization strategies (not forms of rationalization) and a continued divergence of industrial relations. Thus, the "Japanization" does not take place.

CONTENTS

1. Looking back and looking ahead
 2. Systemic rationalization – analytic aspects of a worldwide strategy
 3. Obsolete structures and new opportunities for interest representation – approaches in union policy in Germany
 4. Spearhead for better work standards?
- Bibliography

1. LOOKING BACK AND LOOKING AHEAD

The conference that we are launching today has its roots in two previous conferences held in 1982 and 1983.

The topic of the first conference, which took place in Sendai (Japan), *Industrial Relations in Transition*¹, and that of the second, a year later in

¹ Symposium held at the Faculty of Economics, Tōhoku University, Sept./Oct. 1982. Proceedings cf. Tokunaga and Bergmann 1984.

Darmstadt (Germany), *Economic and Social Aspects of Industrial Relations*². Both issues focused on Japan and West Germany and were treated, to some extent, comparatively. In preparing the present conference, the organizers have endeavoured to remain within the tradition of the questions raised and dealt with at the conferences which preceded it. In view of the fact that some eight years have passed in the meantime, this requires a few words of explanation.

First of all, both conferences had the unexpected effect of providing the starting point for a number of Japanese and German collaborations, which have continued up to today and are seemingly gaining strength. In the course of time more Japanese and German colleagues working in corresponding fields have become involved; this is documented by the speakers and guests at this conference. Thus, there has been *de facto* no interruption in the exchange of ideas over the past eight years – a development which provides the basis for continuing this tradition in the form of conferences.

A further array of reasons for continuing the tradition of conferences lies in the topics with which we have concerned ourselves, reflecting as they do the developments and changes in company rationalization strategies, industrial relations, and the basic economic and social conditions of the eighties. Standing at the onset of a new decade, we find ourselves raising new questions and seeking new answers. In this respect it seems appropriate to look back for a moment to the conferences held in 1982 and 1983.

Both conferences were strongly marked by the developments following the first oil crisis of 1973 and especially by the critical economic situation at the beginning of the eighties. At the first conference, the German participants reported on the surprising stability of the dual system of industrial relations in West Germany. Instead of the 'crisis in cooperative trade union policy' and an increasing orientation towards conflict which many had expected, there was a 'flexible adjustment of interest representation to the crisis' as Gerhard Brandt (1984), our late colleague, formulated it in his introductory address in 1982. With the 'cooperative regulation of conflict', the question of the 'Japanization' of interest representation also arose (see also Deutschmann 1989a). Tendencies towards 'syndicalistic loyalty' on the part of employees, and the 'gradual transformation of works councils into *de facto* company unions' (Streeck 1984) were predicted. In the following, I refer to these concepts as 'tendencies toward company-centered interest representation' (*Verbetrieblichung*).

² Symposium held at Technical University, Sept. 1983. Proceedings cf. Bergmann and Tokunaga 1987.

This thesis posits a transfer of power and capacity for regulation from the industry-wide unions to the works councils on the plant level.

At the same time, however, the weak position of the works councils outside the large companies was also pointed out. The tension between concepts of union policy which were increasingly directed toward inputs into the design of technology and work rather than simply compensation for negative effects' and the works councils' problems in realizing these concepts at the plant level was debated (Altmann 1984). The question of the 'Japanization' of interest representation remained open.

One point in which there was agreement was that labour markets were becoming increasingly segmented as a result of the rationalization measures taken at that time, particularly the rapidly spreading utilization of microelectronics. In the treatment of this point the "dual production structure" in Japan moved especially into the forefront, that is, the sub-contracting system and the associated hierarchical structures of the labour market and of employment status (Tokunaga 1984). With reference to 'slim-down management' in rationalization (Hiramoto 1984) and the related measures in personnel policy, the outlines of corresponding developments in Germany were also suggested, for instance the integration of indirect job tasks and participatory forms of work organization in the broadest sense (Deutschmann 1984).

All in all, the tension between company-centred interest representation in Japan and the fate of dual interest representation in Germany played a central role in our debates at the second conference as well (Bergmann and Tokunaga 1987). However, rationalization measures were seen on all sides – even by our Japanese colleagues despite their references to the dual production structure – primarily in a company-related context, shaped by our experiences with the implementation of microelectronics and computer-aided technologies. The question of reorganizing manufacturing in a supra-company context, especially on an international level, and thereby raising the question of completely new tasks for interest representation, was not a subject for debate. But it was precisely to these issues that the perception of problems shifted in the second half of the 80s.

The questions raised at that time must be posed anew and related to present-day developments. In doing this, there are three general areas that will be discussed in depth and from a number of different perspectives in the course of this conference. Briefly they are:

1. New strategies of rationalization, which transcend company boundaries and which have an international focus,
2. the role of a company-linked interest representation or one which reaches out beyond the company, and

3. the labour standards to be achieved, both to ensure productivity as well as to create humane working conditions.

If you would permit me to interject a comment here: My contribution refers mainly to the metal workers' union (IG Metall) and to the works councils of the automotive, metal and electrical industries, namely to mass production goods when addressing the above-mentioned topics. It should be borne in mind, however, that corresponding developments can be detected in other industrial sectors. It is also relevant that companies from other industrial branches have been involved in the rationalization of the automobile producers and their major suppliers. Thereby essential economic sectors are covered by the developments which are the topics for discussion at this conference.

In the next section I will deal with strategies of rationalization and then approach the question of industrial relations.

2. SYSTEMIC RATIONALIZATION – ANALYTIC ASPECTS OF A WORLDWIDE STRATEGY

Let us turn to rationalization. What have been the main changes in the mass production goods industry since the end of the seventies and the beginning of the eighties?

It has become accepted worldwide, both in scientific circles as well as in business management, that far-reaching changes in manufacturing strategies are taking place. It should suffice – in view of the group of experts gathered here – just to mention the change in the market structures brought about by international competition, the satiation and differentiation of demand, as well as the rigidity of Tayloristic manufacturing methods which are no longer capable of meeting the markets' flexibility requirements, the cost pressures within companies etc. It is assumed that the limits of the Fordistic accumulation regime have been reached, and that the balance between forms of production and level of consumption or even the standard of living in a more comprehensive sense is presently in crisis – despite the existing regulating mechanisms provided by the welfare system.

The company rationalization strategies of the seventies – and here I am referring primarily to Germany – seeking to achieve production flexibility and individual work motivation in mass production with the aid of work organization measures (work structuring is the keyword here) – soon reached their limits (Altmann et al. 1982). The introduction of microelectronics and associated computer-based manufacturing systems generated

considerable advances in flexibility. But these remained limited as long as rationalization measures were mainly geared to meeting in-house flexibility requirements.

Since the beginning of the eighties the central problem of rationalization strategies has been the linkage of flexibility and cost reduction. On the basis of rigid machinery and a Tayloristic work organization, it was not possible to optimize the relationship between these two demands. This is also not possible – at least for mass produced goods – within traditional company boundaries.

The basic structure of the new forms of production which seek to resolve the contradiction between flexibilization and economization i.e. simultaneous cost reduction, can be summed up in the term “systemic rationalization”.

At this point a brief semantic observation is unfortunately necessary. The use of the term ‘systemic’ means a rationalization strategy which includes the whole chain of value creation of a product, in other words, one which extends beyond the boundaries of the individual company and which affects every part of this chain. The expression as used here has no relation to system theory in the restricted sense. ‘Strategy’ refers to the structural features of a process of rationalization, which can only be interpreted in retrospect as an expression of conscious, targeted management concepts. I will return to this later.

I should like to outline this rationalization strategy, to which the new concrete forms of production correspond, in six main ideas.

My intention is to shed some light on the analytic dimensions of the worldwide structural convergence of rationalization, which, however, get expressed in nationally specific forms due to societal conditions.

How can we characterize – as ideal types – systemic rationalization and its corresponding production forms?³

1. Essentially, systemic rationalization is no longer solely oriented towards increasing performance at individual workplaces, the productive capacity of individual machines and installations, or towards enhancing the efficiency of delimited machining processes. Instead, its primary objective is the optimal coordination of all functions and work processes within the company. The thrust is towards the integration of manufacturing

³ Regarding systemic rationalization, cf. the work of the Institute for Social Research (ISF), Munich: Altmann et al. 1986; Altmann and Sauer 1989; Döhl 1988; Bieber and Sauer 1991; Sauer et al. 1992. Regarding discussions in Germany: Baethge and Oberbeck 1986; Deutschmann 1989b; Bergstermann and Brandherm-Böhmer 1990.

processes within the company and information technology is the essential tool in achieving this objective.

Computer-aided, integrated manufacturing systems (CIM), as well as the rapid introduction of assembly-oriented engineering, for instance in the combination of CAD/CAM (computer aided design/computer aided manufacturing), are concrete expressions of this. In this context, the corresponding feedback and control technologies, such as production data acquisition (PDA) and personnel information system (PIS), are also worthy of mention.

2. Systemic rationalization refers, above and beyond work process, plant and company, to the entire manufacturing chain of a product; that is, to the coordinated rationalization of supply and processing, which also includes the downstream distribution processes and service areas. In contrast to conventional Fordistic structures, we are not dealing with economic and legal integration within a company, but primarily with linkages or even restructuring within a hierarchical network of manufacturing (and distribution). Organizational measures, but above all information technology-based integration, enable direct technical and organizational interaction throughout the entire production chain. Relations between companies, which until now have been primarily mediated by the market – whether contractually or relationally based – are tending to become fixed in a real and concrete way. Thus, they result in new forms of both dependency as well as autonomy for the affected companies, which are not mediated solely on the basis of market mechanisms.

Once again, I would like to emphasize the strategic relation to the optimization of value creation throughout the entire production chain.

In externalizing or integrating individual process segments into the company's own production process, e.g. make or buy decisions (MOB decisions) related to production costs or the company's own know-how are no longer the only considerations. Apart from securing processes which are company-specific and important from the perspective of market strategy, the relative importance of externalization or integration for productivity in the chain as a whole is decisive.

3. There have always been attempts to control the upstream and downstream manufacturing stages and thereby skim off profits. In the Fordistic tradition this was primarily achieved by vertical integration within a company or by the company exploiting its own market power. As far as strategy is concerned, however, systemic rationalization does not center on such measures. It is not a matter of simply transferring profits within a production chain in the sense of a zero-sum game. Rather, given ongoing increases in productivity, the critical point becomes having

an influence on the source as well as controlling the distribution of the productivity gains that have been achieved. This implies two different things:

As to the first, companies which are more or less dependent and possess limited innovation and investment capacity must be granted sufficient autonomy to be able to exploit their specific performance potential to the fullest extent possible.

As to the second, for controlling companies it is a matter of being able to define the means or instruments which determine the development of total productivity and the distribution of productivity gains. I will return to this aspect shortly.

The gap between rigid cost pressure and sheer exploitation by powerful companies on the one hand, and cooperation and assistance on the other is a large one in reality, and neither the one extreme nor the other characterizes relationships between dependent and controlling companies. It is a matter of balancing control and autonomy, and for the focal companies the issue consists of controlling the autonomy of the dependent companies throughout the production chain.

4. Neither market mechanisms nor relationships of direct economic dependence generate productivity increases and power positions in the production chain. Market mechanisms and relationships of dependence come into play via manufacturing functions which are determined by the markets of focal companies or end producers and their rationalization strategies. The decisive functions – or more concretely: company areas – are research and development, inter-company logistics and supra-company quality assurance. Especially in these areas, not only do the material linkages within the production chain take concrete form, but also the instruments for determining control and autonomy (with regard to this section, compare the contribution by Dieter Sauer).

a) The extent to which a company is in the position of engaging in research and development (R&D) thanks to its capacity for innovation and invention also determines its degree of autonomy within the production chain. The increasing in-house basic research in focal companies and expanding in-house development of products and process technologies in upstream companies preserve the state of balance. At the same time, due to different centers of gravity in research and development, the dominant companies' potential and needs for planning, regulation and control continue to grow.

b) Inter-company logistics is geared to achieving productivity gains on a supra-company level and also serves to structure inter-company relations between controlling and dependent companies. Here, too, it is not a matter of simply shifting costs, but essentially a rationalization issue, namely that of increasing organizational flexibility and lowering the transaction costs

in the whole chain. At the same time information and communications technology helps render the logistics process considerably more transparent, and thus increases the potential for regulation and control. This makes it possible to redefine the relationship of autonomy and dependence.

c) Quality assurance is a central mechanism for mediating the rationalization of the production chain as a whole. It is not just a matter of competitiveness in quality in the end product market, or of lowering inspection costs, but also a matter of achieving the means for realization of complex techniques of automation in the end producer's company. Quality standards become a means of controlling the production chain and productivity gains. On the whole this also expands the potential for balancing autonomy and control.

5. The central focus of systemic rationalization is to exploit the elastic potential of technology, and not that of the labour force, in order to achieve flexibility. I am very much aware that what I am postulating is likely to meet with considerable opposition. Most social scientists and managers continue to see flexibility in small-scale companies, in company-internal decentralized production structures or in altered forms of the assignment and use of labour. The key words here are: profit centers as the principle of company organization, reprofessionalization, group work, U-line organization in direct manufacturing, and so on.

Flexibility and economization of the product chain for mass-production goods, however, can only be achieved on the condition and basis of flexible automation and of system technologies which ensure regulation and control of the decentralized production sequences over and beyond single processes or companies. In this way the labour force loses some of its importance as an immediate subject of systemic rationalization strategies for securing flexibility. Determining which groups of employees – or more precisely, which functions and skills – will gain more importance at which points in the production chain can only be derived by focusing on systemic rationalization through flexible technologies.

In direct production the few positions of process control become highly relevant. At least as far as end users and direct suppliers are concerned, these are engineering positions in the further development of flexible technologies and software. Furthermore, there are the key groups with varying qualifications which are to be found at the still problematic interfaces of different technologies and inter-company networks. Lastly, there are the experts dealing with structurally similar problems in implementing computer-aided flexible technologies which are continually arising and ensuring their optimum capacity utilization. The issue of the flexible exploitation of labour either in the small companies at the 'lower' levels of the suppliers' pyramid, or in the small companies downstream in the service sector go beyond the scope of this paper.

Labour does not directly secure production flexibility, but rather the functioning of flexible technology as the indispensable basis of systemically integrated production. For this reason, human resource management is a variable resulting from the rationalization strategy, which is mainly oriented toward technical flexibility, and so remains limited.

6. Bringing the analytical outline of systemic rationalization to an end, there are at least three other questions that should be raised, which I can only touch upon briefly:

a) First of all, I would like to deal with a question which was posed by Christoph Deutschmann in an earlier paper (Deutschmann 1989b): Who is the moving force of systemic rationalization, and if it is management, who does this management consist of? The type of rationalization I have outlined demonstrates clear impulses for optimizing the relationship between achieving flexibility and reducing costs simultaneously under the new conditions of competition on the sales markets. This is to say that from an analytical standpoint systemic rationalization is not 'systematic' nor is it a managerial planning concept.

On the empirical level this has been observed – and not just in the automotive industry – in the course systemic rationalization has run, namely in small steps, with insular solutions and a certain amount of friction. Here management fractions, as agents or groups of agents with certain interests, play a role which naturally modifies the concrete form of rationalization.

It is absolutely certain, however, as Deutschmann shows, that reflexive learning processes tend to develop, which solidify into management concepts, and lead to a most likely increasing and consciously systematic planning of systemic rationalization. Systemic rationalization yields successive increases in transparency and makes systematic planning possible by way of feedback mechanisms. Here too, it is well to remember that the production strategies which are spreading worldwide can only be understood in retrospect as managerial 'concepts' – roughly in the sense of 'lean production' as this is presented by the principle authors of the MIT study (Womack et al. 1990).

b) This brings us to the second question: What does 'internationalization' or 'globalization' mean in this context? I can only deal with this very briefly here, as our colleague Ulrich Jürgens will be going into this question in detail both conceptually and concretely in his paper.

The Berkeley Round Table on the International Economy (BRIE Discussion Paper 1991) proposes that internationalization be defined as companies entering the sales market on a worldwide scale; multinationalization that companies set up production facilities abroad; and globalization that

numerous sources of innovative rationalization concepts exist, which develop in the geographical centers of industrial production (such as Japan, U.S.A., Europe) and gradually settle into a few different approaches. This would mean that concepts of lean production, of flexibly specialized production, or of industrial districts arise independently of one another and in competition with one another. The result would be turbulence in the markets and competitive pressure from rival innovations.

In contrast, the systemic rationalization approach understands globalization as being a characteristic of the rationalization strategy itself. This involves building up production chains and their networks, mostly supported by information technology; chains which may be international or global, depending on the industry and structural and political conditions of the region. The focus remains orienting the production strategy towards increasing productivity and profitability within an integrated system, and also on creating a balance between autonomy and control in order to be able to ensure that profits can be transferred on a worldwide basis.

c) Finally, there is the question of convergence, which was mentioned at the beginning of this paper. Demonstrating that rationalization concepts have been 'taken over' by management does not provide the analytic key to interpreting strategies of rationalization which are becoming universally visible, but rather in the attempts at solving the dilemma of flexibility versus cost reduction, which are wholly specific to nations, industries, and companies.

The MIT study mentioned above provides effective publicity in placing the problem of adopting concepts in the forefront, but all references cited are to objective factors of production technology, economics and personnel costs.

If, as just suggested, we assume systemic rationalization to be a basic structure, a production form which is currently asserting itself, then the various managerial production concepts being discussed today – such as flexible specialization, development of industrial districts, lean production or flexibly standardized mass production – are all directed towards controlling or incorporating more or less autonomous companies into the production and distribution chains as an aspect of problem solving, as I have outlined. The solutions tend to remain subordinated to the given societal conditions (as demonstrated once again by Berggren in his recent book on the Swedish automotive industry; Berggren 1991): in other words, structural convergence manifesting itself in different forms, or to put it loosely, the convergence of rationalization without Japanization.

3. OBSOLETE STRUCTURES AND NEW OPPORTUNITIES FOR INTEREST REPRESENTATION – APPROACHES IN UNION POLICY IN GERMANY

I now come to the role which the dual system of interest representation existing in Germany plays in this process of rationalization (on the system of industrial relations; cf Weiss 1987). The question is whether structurally similar strategies of rationalization are associated with convergence in the structures of interest representation.

I return to the thesis mentioned at the beginning of this paper on the trend towards 'company-centered interest representation'.

This thesis, very much simplified, assumes the following: As flexibilization, decentralization and so on increase in mass-production in the era of so-called 'post-Fordism', general guidelines can no longer be made for the design of work conditions or the implementation and enforcement of labour standards at the union level which is responsible for an industry or for large regions. The concrete shaping of general, and even abstract, collective agreements is now increasingly and principally undertaken by the works councils. At the same time, there is the assumption that this results in an increase in their power. This development is supported by offers of participation from employers. It is assumed that this would also lie in the employee's interest. The result could be that the works councils would become more tightly bound in with company specific interests in order to secure legitimation and clientele. Growing company syndicalism would be the logical result. To an increasing degree, the unions would only perform service functions and the like for the works councils or direct services for its members (for a summary see Müller-Jentsch 1986: 273).

To put it briefly and somewhat bluntly: This thesis posits a shift of power to the works councils, "company egoism" and participatory management and as such a tendency towards the 'Japanization' of interest representation.

In the following I intend to show that this idea of the tendency towards company-centered interest representation is not only incorrect, but also that the question of Japanization has been wrongly posed. It diverts away from the central demands on the system of interest representation in Germany under the conditions of systemic rationalization.

By the way, here we are not dealing with the question of "adopting" concepts of participation or interest representation – such as the well-known examples of Japanese transplants in the U.S. A. – but rather with the question of their almost 'inevitable' implementation within the context of new strategies of rationalization.

I would like to very briefly outline two developments in interest representation in Germany which are linked to systemic rationalization. Here we are dealing with:

1. the crisis in the normative system of negotiations and
2. the obsolescence of institutional structures of interest representation.

1. Unlike the period of economic crisis at the beginning of the eighties and the insular introduction of microelectronics-based 'new technologies' up until the middle of the eighties, the adaptation of interest representation to changed conditions by means of 'cooperative conflict management' is no longer a subject for debate. It is now a question of the system of negotiating itself, which is founded on the "juridicalization" of industrial relations, entering into a crisis (Erd 1978).

During the long period of Tayloristically oriented rationalization, two areas of bargaining held center stage in the conflict of interests: one was the relationship between wage and performance, and the other was job security. Both areas were extensively regulated and consolidated by collective agreements and thus also firmly established the works councils' range of negotiation tools. This has been called the "juridicalization" (*Verrechtlichung*) of industrial relations. With the advance of systemic rationalization both areas of bargaining became precarious.

a) The mechanisms for the control and monitoring of labour in Tayloristically organized work processes were primarily determined by the economics of time, that is, aimed at securing a measurable quantified job performance. The construction of the so-called 'normal performance'⁴ was the 'historic compromise' between employers and unions by which the wage-performance relationship could be bargained (Linhart et al. 1989). Conditions surrounding performance – predominantly physical work burdens – were quantified and compensated for by means of additional allowances.

With the advance of systemic rationalization, however, this principle of control through the wage-performance relationship lost its foundation. This, however, is due only to a limited extent to new forms of labour utilization, discussed by many authors, including myself, which cannot be negotiated using the traditional, quantitatively-oriented wage and performance criteria (Altmann and Düll 1990). Indeed planning at the work-

⁴ In the 60s and 70s, employers and unions agreed in principle upon a definition – with various special provisions, – whereby "normal performance" consists of performance which can be reasonably expected and achieved on a long-term basis by every worker having sufficient aptitude and enough practice after adequate training, and which do not entail any health risks. It is obvious that this formulation permits considerable scope for interpretation.

place level, flexible deployment of labour, teamwork and so on still only comprise a restricted quantitative importance in direct production.

In systemic rationalization the problem of performance now presents itself differently: First of all, as far as the works councils' bargaining power is concerned, it is important whether the unions succeed in generally pushing through criteria for work assessment and wage setting which are appropriate to the new demands made on some of the labour force (flexible deployment, cooperation, planning etc). So far, they have not been very successful in this respect. Secondly, however, it will be of decisive importance for the works councils which position their company, or a particular section of manufacturing within their company, occupies in the dependency pyramid of the total production chain. Opportunities of influencing relocation of production facilities, MOB decisions, utilization of external services, for example those of a logistical nature, will be central for them; and thus the question as to what forms of employee performance will be demanded within the company.

The once central, consolidated, normatively secured area of performance bargaining not only becomes precarious because conventional criteria of performance – e.g. work assessment and wage setting – can no longer be applied, but also because it finds itself completely outside the range of a relevant means of influencing working conditions. In the process of systemic rationalization, it is precisely those areas which so far have not been regulated which have become relevant for interest representation. These areas include information on and the opportunity of exerting influence on the internal and external shaping of networks with regard to their technical organization; the supra-regional and international transparency of costs, which is available to management but not to the works council; the plant-external decisions made by the principal companies of multinational groups, and so on.

b) The same holds for employment. Previously, the consequences of rationalization measures which had a direct effect on employment were identifiable within the company and negotiable within the framework of consolidated settlements. This was, however, linked to proof of a direct connection between rationalization measures and their consequences for employment or employee status. With systemic rationalization, integrated forms of production cause qualitative and quantitative effects both within the company and across companies at those points which are not directly linked to rationalization measures (for example, at the suppliers and not at the manufacturers where an actual rationalization measure has been undertaken). And so employment becomes difficult to negotiate within the framework of existing normative procedures (Deiß 1988; Deiß 1989).

Since these areas escape standardized bargaining within individual companies, there is more pressure on the works councils to utilize “weak forms” of representation, such as information and counselling, informal influence and similar measures, as opposed to “strong” forms of interest representation such as co-determination and control. Naturally, bargaining results achieved with the aid of weak forms of negotiation decrease the likelihood that they are enforceable by regulations. Likewise, the possibility of generalizing these results and setting standards which reach beyond the company also diminishes.

This concludes a brief treatment of company interest representation. Should normatively consolidated areas of bargaining with strong representational rights such as co-determination and control become precarious, and bargaining should shift to weak forms of interest representation such as counselling and information services, then one could say a ‘Japanization’ – in the sense of consultation procedures and purely intra-company solutions – was emerging.

2. This development does not, however, mean the ‘tendency towards company-centered interest representation’ in the sense of a growth in power of the works councils and a loss of function for the unions. Obviously – and this is my line of argument – the situation is rather the other way around: Systemic rationalization leads to weakness in bargaining and loss of works council power. And here new functions appear for the unions within the dual system. These may mean new bases for power and influence in comparison to the intra-company interest representations – provided the unions succeed in carrying out these functions.

The following argument is not concerned with demonstrating an increase in unions’ power, but rather with outlining the conditions under which a stabilization of the dual system of interest representation is conceivable and possible under systemic rationalization.

I should like to formulate two closely connected assumptions here:

a) The first deals with the increasing obsolescence of the prevailing institutional structure in light of inter-company integration and internationalization:

While relations between central company-headquarters and their divisions and between different enterprises are solidifying and strengthening, there have been as yet no institutionalized connections between the work councils of different companies or between companies within a production or logistics chain. In light of unions organized on the basis of one industrial branch, this applies particularly to companies within a chain which encompasses a number of branches. (In automotive manufacturing, for example, we would encounter the metal workers’ union IG Metall as

well as the unions concerned with the textile or plastics branches and so on). There is in general neither mutual exchange of information nor cooperation on the part of the respective works-councils; for example, concerning impending changes in the volume of work, the possible relocation of company facilities or MOB decisions in user companies, or communication of experiences relating to new work requirements due to new logistics systems, or common strategies, for example, regulating working hours within a just-in-time (JIT) context, and so on.⁵

At the same time works councils of smaller companies, for example suppliers of the second or third tier, actually lose their bargaining partner, namely management, as the latter is strongly dependent on external customer decisions. Examples include working time arrangements for which co-determination should be compulsory, for example within a JIT context, or the volume of orders, which determines staff cuts or overtime, and so on. Our colleague Reinhard Doleschal will report on this issue.

It is important to understand that the separation of production integration and the structure of interest representation is itself an element of systemic rationalization: drawing new boundaries between enterprises and companies is an integral part of this rationalization strategy.

Examples are: The new structuring or restructuring of enterprises roughly by reductions in company size in order to evade co-determination regulations; the choice of location and relocation (which means that new structures of interest representation will then have to be built up); the externalization of certain processes into independent commercial units (this may be done, for example, in order to enter organizational areas with more favourable collective settlements – the so-called ‘flight from wage agreements’ – or in order to pull certain employee groups and work processes – such as data processing or central logistics control – away from the influence and awareness of the works councils).

This development is gaining momentum in connection with international logistics and even more so within the context of multinationals; it will be further boosted by the creation of the European Market. This topic will be dealt with by Gerhard Bosch.

The interim conclusion is: The organization of production and interest representation are drifting apart.

The problems of interest representation which thereby arise – and

⁵ At this point I will not go into the first attempts to set up intercompany contacts between works councils in the automotive industry; they follow initiatives by IG Metall or individual works councils but are not formally institutionalized. Nor will questions of the different bargaining traditions or of different union policies be treated.

which are only outlined here – cannot be solved at the company level. With this in mind, which points of departure present themselves to the unions?

In order to overcome the obsolescence of institutional structures, first attempts are being made to develop and put into effect legal regulations. This approach accords with conventional union policies. What is envisaged is that corporate works councils or works councils within production chains or within *de facto* or quasi-corporations also become integrated, and thus can be secured on a legal basis or by collective agreement. This is also intended to produce a coordinated representation of employees from different companies on a European level.

These concepts have different directions of thrust. One example is the call for higher ranking participation rights following a pattern of corporate-level works councils along a logistical chain in the case that an information technology link and a relationship of domination by the final producer exists, or if the close interaction generated by information technology and work organization produces quasi a single company – i.e. a closed production chain. In our context, such settlements, however, would only affect the relationship of manufacturers and system suppliers or first tier suppliers and would not affect the many small-scale suppliers (for a summary see Wendeling-Schröder 1991).

So far, successful implementation of such settlements have been singularly lacking and as far as the European context is concerned, can hardly be expected at present.

One suggestion of the EC commission envisages the legally binding installment of "European Works Councils" within companies and groups of companies. Compared with settlements made in Germany their functions would be extremely restricted. The, as of now, foreseen minimum regulations do not contain any participation rights, but only weak information and counselling rights.

Such models of regulation, which are based on a parallelism of production and interest representation structures, will certainly continue to be put forward by the unions. But these models seem, should they be realized at all, to be based on weak forms of representation, as already evidenced for single company works councils. The very few supra-company and international forms of participation that can be found at present fulfill little more than very general information functions.

Examples are the "Information Committees" at Thomson Consumer Electronics or at BSN (foodstuffs industry); the "European Corporate Works Council" in the Volkswagen group and the "Union Information Circle" at Gillette which is not accepted by that company (for a summary, see Buda 1991: 241ff.).

b) Against this background – and this is my second assumption – a role is played by developments which, although they do not represent any new form of industrial relations in an inter-company and international context, could well still provide impulses towards a stabilization of the unions within the dual structure. These developments are founded precisely on the obsolescence of prevailing institutional structures and normative settlements. I would like to cite five aspects closely related to systemic rationalization although they also extend far beyond it.

Firstly: Due to the very nature and intensity of integration in market strategy, use of information technology and new forms of work organization, international and inter-company cooperation between corporations – particularly in the automotive industry – the problems go far beyond what works councils are capable of comprehending conceptually, grasping as information, or influencing either by means of strong or weak forms of participation. Their traditional tools for controlling consequences for the labour force have, as demonstrated, become fragile. Without the massive support of the unions in the form of planning and training on the one side, and by the development of new tools and forms of regulation on the other, the works councils will lose influence. This is particularly true for the works councils of dependent companies. In the automotive industry this applies especially for suppliers' works councils or downstream service and distribution companies. Without the conceptual and informational assistance of the unions, the basis for company-centered bargaining will be lost. This could be secured, however, if the unions took the initiative.

Secondly: A central factor in systemic rationalization consists of exploiting advantages of production costs with the aid of inter-company division of labour and networking, and particularly by internationalization. This presumes the existence of differing labour standards. The possibilities of generalizing the results of bargaining which were achieved at one location by works councils or across a whole industry by unions are thereby undermined. Up to now, standardization of income, employment status and working conditions have not only been the precondition for the dual system of interest representation and the foundation of social stability. Securing these conditions has also lain – at least on the national level – in the interest of management: within the company, to avoid conflicts amongst the workforce, and within individual industries, to eliminate differing conditions of competition on the market. These conditions are fading away through the orientation towards international competition. The creation of the European Market has provided companies with even greater opportunities for exploiting discrepancies in labour standards. An area of conflict is arising on a national and international level which can-

not be handled by works councils, only by unions. This means that in future the unions will have to fulfill new functions.

Thirdly: The regional, national and global linkages of production processes are associated with new forms of inter-company divisions of labour, new configurations for company locations, new demands on public sector infrastructure measures. Here the works councils, as in the case of workforce reduction, are definitely overtaxed. Union initiatives in the form of cooperation with municipalities, labour administrations, and state governments, have already led to regional and structural development measures. Here the unions have presented solutions fraught with conflict but which still received the support of the industry to some extent (examples are employment plans in cases of mass layoffs; for a survey see Bosch 1990). Activities of this type are still the exception rather than the rule, and more oriented to defensive measures and crisis situations. But they do represent a growing component of union work which goes beyond the capacity of the works council or single union. They also contain a stabilizing tendency for the dual system, for example by securing the rather weak position of works councils in crisis situations, and thus cannot be considered in any sense as merely stand-ins for syndicalistic policies (similar ideas can be found in Kern and Sabel 1990).

Fourthly: The integration of the production chain has often been regarded as providing a potential new power base in labour struggles. The keyword here is spot-strikes within the logistics chain. This weapon has been considerably restricted by the high integration of information technology and logistics, contributing to centralized control of production processes on an international level, by the potential threat of relocation, labour transfer, removal of poorly-organized white-collar areas from the company, and so on. We may add to these the deregulation measures in Germany, which make corresponding countermeasures on the part of management possible, in particular the so-called 'indirect' lock-out (*kalte Aussperrung*).

Nevertheless, labour disputes are not out of the question because integrated production is highly susceptible to disturbances. In any case, in the dual system only the unions, and not the work councils, can initiate a labour dispute. Thus, a strong instrument of interest representation in Germany remains in the hands of the unions.

Fifthly: Who is – or remains – the clientele and thus the power base of interest representation in the process of systemic rationalization? Can interest representation secure its legitimacy when the form and content of labour and the rewards for performance are increasingly determined by rationalization measures which are oriented to supra-company and international criteria? Or if differing labour standards can be exploited, and if

enforcing employees' interests becomes increasingly impossible within individual companies?

The problem presents itself in two ways. Firstly, the organization and activation of indirect, especially white-collar, employees (key groups in production, personnel in research and development, and so on) within the union cannot be presently achieved with work council representation as it now exists. These so-called 'modern employees' believe that they have a stronger capacity of asserting their interests as individuals. For workers in direct production the old risks still exist, and these can be handled primarily by the works councils. But with systemic rationalization new dangers arise through decisions made by the head offices of multinationals – such as the threat of integration or externalization of work processes, company relocation, and so on – and the works councils have no way of influencing such threats.

Therefore, for the unions, long-term societal-level activities have to be given considerable importance in order to solve the organization problem for the 'modern employee' and also the representation problem for the 'traditional worker' and to secure the unions' legitimacy for both groups of employees.

There are a number of starting points which suggest themselves. One example, to remain within the context of the automotive industry and to avoid beginning a new paper, is IG Metall's programme on "Car Production, Environmental Problems and the Future of Traffic". This proposal calls for a close linking of measures relating to ecology, infrastructure, product design, and other areas, but does not question production itself, and as such, employment in that industry. Such programmes make it possible to address workforce groups which are otherwise hard to reach on the company level; they are, for example, acceptable to the 'modern employees' as they address professional and general life interests without bringing this group of employees into explicit contradiction with their duties in the company.

On the other hand, it still remains decisive that the unions also perform services for the mass of 'traditional workers.' Systemic rationalization makes new demands on wage policies, on job protection policies, and so on, which we cannot go into here (Deiss 1990; Sauer 1989). The interests of these employees can only be represented within the company and by the works councils when general labour standards, which go beyond the individual company, can still be put into effect in a society. The necessity of being able to generalize bargaining results is solely the responsibility of the unions in the dual interest representation structure. It is, however, an open question whether this shift onto societal-level activities will produce a new basis for the cooperative solution of conflicts as in the 80's, or whether it will lead to a corporatist form of union policy.

The obsolescence of the traditional bases of interest representation points to the potential of the unions rather than that of the works councils. All in all, approaches are presenting themselves for stabilizing the dual structure of representation through a politicization of interest representation on a societal level.

4. SPEARHEAD FOR BETTER WORK STANDARDS?

I would like to summarize my paper by making three points in conclusion:

1. The central message I would like to emphasize in my contribution is a twofold one:

a) There are good reasons to suppose that a worldwide convergence of a rationalization strategy is emerging which, spreading out from focal enterprises, is directed at increasing productivity in entire production and service chains. The struggle over the distribution of profits in the value added chain leads, however, to new forms of autonomy and control within these chains.

In this context, strategy cannot be seen as a managerial concept which had been *ex ante* formulated and can now simply be 'adopted'. Systemic rationalization means simultaneously increasing flexibility and reducing costs – a solution which is only possible on a supra-company level. But systemic rationalization induces a reflexive learning process and thereby becomes a systematically pursued management goal. In this process, the forms that systemic rationalization take on national and regional levels remain different: What we have is convergence in structure and divergence in form.

b) This development does not entail an automatic or naturally evolving convergence of the structures of interest representation – this is something I dealt with under the question of the Japanization of German interest representation. In the process of inter-company and internationally linked rationalization a major shift of power towards company-level interest representation is unlikely to take place within the framework of the dual system in Germany with the possible exception of very large companies. On the other hand, however, systemic rationalization does at least offer points of departure for the stabilization of unions and the dual system: in this context we find convergence of rationalization strategies and divergence of the structures of interest representation.

2. Indisputably, my argument on the stabilization of the dual system of interest representation and union politics requires a certain amount of

qualification. I could not have shaped my contribution in such a 'lean' form if I had not been certain that the contributions of my German colleagues to this conference would deal with the potential problems standing in the way of the realization of the various approaches I have put forward. In the following I would like to point out examples of a structural and a historical barrier for union policy in the process of systemic rationalization.

Structurally, systemic rationalization, with its thrust towards the utilization of the elastic potential of technology and towards supra-company integration, implies only a very selective human resource management: the abilities of workers are not comprehensively developed and used, at least not for the vast majority of the labour force. Decisive is that systemic rationalization seeks to strategically exploit existing worldwide differences in the potential of manpower and in work standards in order to increase the productivity of the entire production chain (see the contribution of Werner Sengenberger). This results in impediments for all forms of interest representation: for the German ones especially in the context of the European Market.

Historically, the reunification of the two German states has probably thrown the German unions back years, namely to the pursuit of traditional policy goals: quantitative wage policies, compensation for negative working conditions, job security and increase in employment at any price. Although the situation is still to a great extent unforeseeable, the incorporation of East German industry seems to point to a special version of inter-company division of labour as well as the utilization of different standards of work through systemic rationalization, while interest representation may well be for the most part paralyzed by the classic problems of the employee and the task of building up its own organization. (See Volkmar Kreißig's contribution). It is an open question whether the unions will be able to exploit the existing opportunities for playing a prominent role in social and societal policies.

3. Finally, the central political problem of interest representation in dealing with processes of rationalization is the generalization of established labour standards and their maintenance. This generalization requires at least three preconditions in the unions and in the company work councils:

- Firstly, a power base for bargaining – this would seem rather obvious, but systemic rationalization does raise new questions, especially in view of production chains organized on a global basis.
- Secondly, the possibility of standardizing negotiated outcomes and controlling the adherence to them – this is a growing task within an international context;

- Lastly, concepts and even visions of societal-level policy are a prerequisite not only for reaching the important group of ‘modern employees’ as clientele, but also the mass of ‘non-modern workers’ – this is an old task which was often neglected in the phase of Tayloristic work organization.

Given that the strategies of systemic rationalization are aimed at exploiting different labour standards, that the normative system of bargaining in Germany is in a crisis and the company-centred institutional structures of representation are obsolete, we cannot rule out a decisive move towards the politicizing – instead of “juridicalization” – of union work in order to push through a generalization of established standards. Will German unions act as the spearhead of interest representation in Europe? That is the one question that presently arises.

The other question: Inasmuch as a mobilization of the employees within the context of integration and internationalization of production only succeeds to a limited extent, a new corporatist change is also conceivable as an expression of this politicization – and thus the question of Japanization is raised on a new level: will we witness the emergence of “Germany Incorporated” in the European Home Market?⁶

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⁶ I would like to thank Pamela Meil (ISF, Munich) for elaborating and correcting the English text.

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INTERNATIONALIZATION OF ECONOMIC ACTIVITIES AND INDUSTRIAL RELATIONS

WITH SPECIAL REFERENCE TO THE RECENT STRATEGIES
OF LARGE JAPANESE CORPORATIONS

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ABSTRACT

The fact that the economic activities of corporations have extended far beyond national borders is one of the remarkable recent changes in global society.

In this paper I first maintain that the discipline of industrial relations should also take into account the interrelations among nations and should develop an international viewpoint for analysis.

Second, I deal with the problems of new technology in Japan: what kind of impact new technology has had on labour; how these problems have been discussed and why they have been dealt with in a different way from that in other countries.

Third, I examine the strategy of Japanese large corporations in terms of three main points: the style of management, the nature or type of technology adopted, the structure of the labour market and the industrial relations system. In order to give a balanced understanding, in this paper emphasis is mainly placed on the negative sides of the problems, rather than the positive ones, which many researchers have already discussed in greater detail, sometimes in a self-complacent way.

Finally, I point out some symptoms of recent changes which owe to both domestic and overseas factors, suggesting the necessity of some social reform of the conventional structure of Japanese society.

CONTENTS

1. A constellation of problems
2. The meaning of internationalization
3. Corporations' new production strategies
 - 3.1. The problems of new technology
 - 3.1.1. The quantitative effects on employment
 - 3.1.2. The qualitative effects on labour
 - 3.1.3. How new technology has changed industrial relations
 - 3.2. The characteristics of management strategies
 - 3.3. Some symptoms of changes?
4. Concluding remarks
- Bibliography

1. A CONSTELLATION OF PROBLEMS

In the nearly ten years since the first conference in Sendai, many events have occurred. The following list will outline the pertinent issues.

First, as the words "borderless economy" so aptly show, in the world economy, transnational activities of large corporations have expanded and economic relationships among nations have become closer.

The influence and size of multinational corporations (MNC) has grown so that the amount of their annual sales now equals, or even exceeds, any single nation's annual gross national product (GNP) (Miyazaki 1986). Japanese companies in particular have become increasingly multinational, following the example of their Western counterparts.

Owing to both the rise of the so-called NIEs (newly industrializing economies) and the development of the Japanese economy into an economic giant, the centre of 'relative effectiveness' has been shifting from Western countries to the Pacific countries (Gilpin 1987). However, the economic situation of the Third World has not conspicuously improved. Instead, the gap between developing countries and industrialized nations has widened. The region's existing problems have never been resolved and have, in fact, worsened. One explanation for this is that the primary-products economy has become 'uncoupled' from the industrial economy. In other words, the prices of raw materials, one of the main products supplied by developing countries, have stagnated "at their lowest levels in recorded history in relation to the prices of manufactured goods and services" (Drucker 1986).

The world population today is roughly 5 billion, of which 3.6 billion reside in poor developing areas. These people, who comprise three quarters of the total world population, account for only one quarter of total world consumption. Moreover, 73 million people are living at starvation level, an increase of about 20 per cent over the 60 million figure of ten years ago (Motoyama 1990). Environmental conditions have worsened as a result of rapid growth, uncircumscribed development, and unscrupulous aid policies, for which the industrialized countries are mainly responsible.

If we take a global point of view, we can see that the contemporary capitalist system has fatal defects and therefore, at present we cannot be deemed capable of solving these problems.

From an analytical viewpoint, the previous two conferences lacked the ability to grasp the problems in an international context. It is no longer adequate to analyze global issues from the viewpoint of single-state capitalism but necessary to consider them from a more global perspective.

Also lacking was an analysis of economic activities from a service-oriented point of view, or the viewpoint of – dare we say it – an ‘information society’.

At the last two conferences we discussed the problems of new technology. Since then the ‘microelectronics revolution’ has proceeded still further, greatly increasing the productivity of our society. Based on this, the service sectors of the industrialized countries have flourished. However, in every industrialized country total employment in the industrial sector has stagnated or decreased. This tendency is most conspicuous in the U.S., where ‘de-industrialization’ has become a problem. It is also related to the behaviour of the multinational corporation. The tendency to transfer a part or all of the manufacturing process abroad, i.e. ‘off-shore’ production, has also intensified.

Blue-collar workers are no longer the most crucial part of total employment in the industrialized countries, either quantitatively or qualitatively. Thus, we must reconsider the traditional concept of ‘production’. Nowadays it is difficult for us to group the workers into a homogeneous class. Also, we must acknowledge the importance of female workers. We should stress analysis of the roles of female workers and their significance to the society.

As I cannot go into detail with regard to all these problems in this paper, I will focus on the following major points:

- First, how do we understand the internationalization of the economy?
I will explore this in connection with Japanese corporations.
- Second, I will investigate how new technology has been dealt with, and thereby Japanese companies’ policy of rationalizing production through its use.
- Last, I will point out some of the implications of alternative policies, referring to the development of industrial relations since the last two symposia were held.

2. THE MEANING OF INTERNATIONALIZATION

There are differing views as to whether capitalism and the labour market have been world systems from their beginning. As is generally known, the concept of ‘a new division of labour’ was founded and advocated by Fröbel and others (1980) in the 1970s. The term MNC was first put forward in 1960 by David Lilienthal. Depending upon its definition, the existence of the MNC itself can be traced back to the mid-19th century (Fieldhouse

1986: 24). Potts (1990) starts her analysis of the world labour market with the 15th century.

However, for our discussion here, it is important to remember the revolutionary developments in transportation and communications in recent years. Above all, the spread of MNCs motivates us to investigate the problems of industrial relations from the international point of view. We must clearly understand the existence of the following differences between the similar conditions of the prewar and postwar periods, especially since the 1970s.

First, I shall outline the quantitative differences: MNCs in recent years have become enormous. The scale of the MNC is equivalent to or greater than that of one country. For example, the revenues of Exxon Corporation in 1981 (U.S. \$ 11.3 billion) were equivalent to the gross national products of Switzerland (11.3) or Czechoslovakia (8.9). The revenues of Royal Dutch Shell (8.2) and General Motors Corp.(6.3) exceeded the GNPs of Greece (4.3), Thailand (3.7) and Portugal (2.5) (Miyazaki 1986). Moreover, the international migration of labour has taken place on a large scale for a number of reasons. Because the continuous economic growth of the world economy from the mid-1950s to the first half of the 1970s had created a situation of full employment, there was much international migration – around 20 million migrant workers worldwide in 1980 (World Labour Report 1984, cited in Potts 1990). That is without doubt a low estimate: The International Labour Office (ILO) estimated that there are in fact some 25 to 35 million people who have left their home countries and now live abroad. In six Western European countries the number of foreign workers increased by more than two times during the 14 years from 1960 to 1974. In the peak year, the share of foreign workers in total employment reached about ten percent. In 1986, there were still more than 5 million foreign workers living in Western Europe (Okumura et al. 1990).

There are also qualitative differences: Foreign direct investment in the prewar period was directed mainly from the industrialized countries to the developing ones. Nowadays, there is also foreign direct investment among the industrialized countries. The aims of overseas direct investment are no longer just to secure natural resources and use cheap labour in the former colonial countries. Based upon the relative advantages due to technology and management 'know-how', the industrialized countries have invested in one another. Thus, a mutually permeating network of trade and capital has been formed all over the world. Needless to say, it was promoted and supported by the recent revolutionary developments in transportation and communications (e.g. jumbo-jets, facsimiles, etc.)

The economic activities of each country today are globalized and synchronized. As a result, the conditions of the 'borderless economy' have

been realized. Big corporations plan their own 'global strategy' and adopt measures to implement it. They decide whether they should produce in a country, what kinds of products, how, and how much, so as to produce at the optimal conditions from a global viewpoint. It is not necessary for big corporations to plot to maximize profit within each domestic sphere. If they suffer a loss within one nation's market, they need only balance it from a global view. In other words, the MNC has a wider range of choice when it comes to investment opportunities, and therefore an advantage. For example, one product is developed and designed in the United States, some of its mechanical parts are manufactured in Japan, and some components are purchased from Asian NIEs; the final assembly process takes place in the countries where the products are consumed; and the producer is able to build its research institute in Europe. This is the new international division of labour.

Although production activities are transnational and allotted to various countries, the most important decisions are made in the respective nation in which the headquarters are located. In other words, diverse activities are coordinated under one definite policy decided on at the head office. In this sense the power of decision-making is centralized, in spite of the highly divergent form in which it is implemented. This process, however, does not prevent subsidiary plants from contributing to the economic growth of the host countries. In fact, some developing countries have made use of this opportunity and have succeeded in contributing to the rapid industrialization of their economies. The rise of the Asian NIEs is a good example. Instead of an *import substitution* policy at an early stage, these countries adopted an *export-oriented* policy and have been making great strides toward developing into industrialized nations. Their emergence as new industrialized economies shows the one-sidedness of the so-called 'dependence theory', and has contributed to an increase in the Asian area's share of the world economy (cf. Table 1 and Figure 1). Now sharing nearly one third of the total global gross domestic product (GDP), Southeast Asia forms one of the three major economic poles of the world (the other two being North America and Western Europe).

In short, the internationalization of the global economy is in progress. Therefore, a world-wide network of goods, money, manpower and information has been established, with each country's economic activities being integrated into it. This fact urges industrial relations researchers to reflect upon the necessity of incorporating a global viewpoint into our analytical mode because – although it is still true, as Adam Smith once pointed out, that 'labour' is the most difficult commodity to move – nowadays transnational migration of labour is appearing on a larger scale. Again, this is because more than just a few native workers, especially

Table 1: Growth of the principal countries' GDP (in billion U.S. Dollar; in brackets: share of each region in %)

	1962	1970	1980	1988
N. America	613.6 (45.4)	1,093.6 (41.9)	2,951.7 (29.0)	5,302.4 (31.2)
U.S.A.	572.4 (42.4)	1,009.2 (38.7)	2,688.5 (26.4)	4,817.8 (28.3)
Canada	41.2 (3.1)	84.4 (3.2)	263.2 (2.6)	484.6 (2.8)
West Europe	406.5 (30.1)	795.6 (30.5)	3,594.9 (35.3)	5,528.1 (32.5)
W. Germany	90.2 (6.7)	184.5 (7.1)	813.7 (8.0)	1,201.8 (7.1)
France	74.2 (5.5)	142.9 (5.5)	664.6 (6.5)	949.9 (5.6)
Britain	80.7 (6.0)	123.9 (4.7)	536.2 (5.3)	822.8 (4.8)
Italy	49.6 (3.7)	107.5 (4.1)	452.7 (4.5)	829.9 (4.9)
Southeast and East Asia	165.4 (12.2)	406.4 (15.6)	1,800.6 (17.7)	3,975.7 (23.4)
Japan	61.0 (4.5)	203.7 (7.8)	1,059.3 (10.4)	2,843.4 (16.7)
Asia NIEs	6.8 (0.5)	18.3 (0.7)	142.4 (1.4)	349.6 (2.1)
ASEAN	9.9 (0.7)	17.7 (0.7)	165.2 (1.6)	208.3 (1.2)
China	37.5 (2.8)	78.2 (3.0)	246.1 (2.4)	376.5 (2.2)
Other countries	164.8 (12.2)	315.0 (12.1)	1,825.0 (17.9)	2,212.2 (13.0)
Total (world)	1,350.3 (100.0)	2,610.6 (100.0)	10,172.2 (100.0)	17,018.4 (100.0)

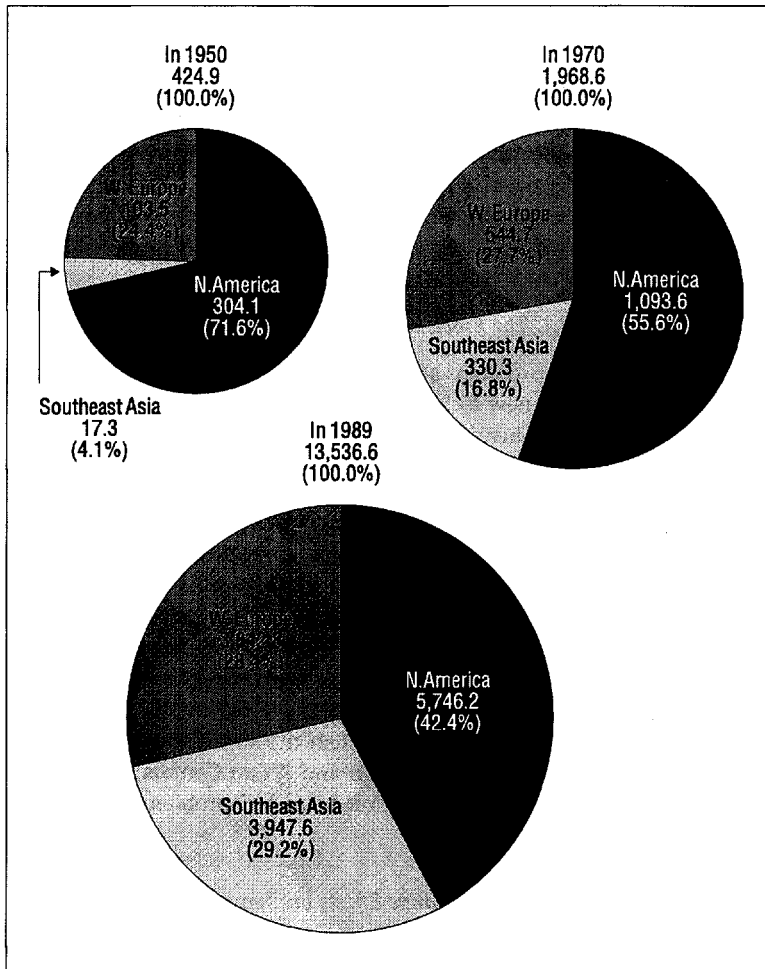
Source: Nihon Kaihatsu Ginkō (1991: 7).

female workers working on the assembly line of an export-oriented electronic plant – let's say in Malaysia – form one of the ingredients of the international division of labour as a whole (Pearson 1986: 342–345).

This transnational migration of labour does not mean that the process of internationalization will make the world uniform, still less that it will bring the 'extinction of the state'. In spite of the internationalization of economic activities, the state does not disappear, but continues to exist. As Gilpin says (1987), there is a logic of politics or power in parallel with that of economy. The state can still check and control economic activities to a certain extent, using its sovereignty to pursue the 'national interest'. Of course, the state has not always been almighty; yet it is true that the state exerts its power to influence various matters. Regulations such as import surcharges or quota systems, local content regulations and so on are only some of its concrete measures. States are able to adopt policies which encourage foreign direct investment by exemption from taxation, EPZ (economic processing zones), FTZ (free trade zones), etc. In the mid-1970s more than a few countries, including China, changed their earlier restrictive policies and adopted open policies for attracting foreign capital.

We cannot talk about the 'extinction of the state' in the foreseeable future. It is nothing more than an illusion. Nevertheless, we must take particular notice of new tendencies toward regional unification such as those seen in the European Community. We might regard this as the model for what new states should be. States will exist, but 19th-century-type

Figure 1: The growth of nominal GDP in the three big economic areas of the world (in billion U.S. Dollar; in brackets: share of each area)



The areas are defined as follows:

North America: U.S.A., Canada;

Western Europe: F.R.G., France, Italy, U.K.;

Southeast Asia: Japan, South Korea, Taiwan, Singapore, Hongkong, Malaysia, Thailand, Indonesia, the Philippines, China. The data for 1950 include only Japan, Thailand and the Philippines.

Source: Nihon Kaihatsu Ginkō (1991: 11).

national states will gradually be transformed. Despite internationalization, 'uneven development' will not disappear. Capitalist development has created cores or metropolises on the one hand and peripheries on the other (Wallerstein 1983). Those geographically hierarchical structures of the world economy are so solidly structured that they will not easily be altered. Examining this problem in detail is beyond the scope of our subject here; therefore, I will not discuss it any further, only point out that this problem exists.

3. CORPORATIONS' NEW PRODUCTION STRATEGIES

3.1. *The Problems of New Technology*

Before examining the problems at company level, I will discuss in general terms the problems of new technology in Japan.

What kind of problems does the so-called new technology cause for labour? These problems, called "microelectronization (ME) problems" in Japan, attracted attention in the early 1980s and had become one of the most conspicuous topics by the mid-1980s. However, just after the *Plaza Agreement* (September 1985), which brought a rapid rise in the value of the Yen and therefore a decrease in exports, the economy bottomed out at the end of 1986. The succeeding long prosperity lasted until 1991, when the economy again fell into a recession. During the long boom period, ME problems began to recede and instead the main issues were how to restructure the Japanese economy during the recession caused by the strengthening of the Yen; how to establish the so-called tripolar world system – i.e., with American, European and Asian Centers; and how to cope with the shortage of workers. Yet have ME problems really been solved?

3.1.1. *The Quantitative Effects on Employment*

We will examine the quantitative effects on employment first at a macro and then at a micro level. In Japan serious unemployment has not been caused by the introduction of new technology. This is because a nation's level of employment depends upon its total demand, not upon technology. Even if new technology is introduced to a significant degree, this does not lead to a reduction in the volume of employment, provided total demand does not decrease. Furthermore, employment may even increase if the rate of decrease in demand caused by the introduction of new technology is less than the rate of overall increase. This case is applicable to Japan.

Owing to exports and the opening up of new markets, Japan's employment demand increased. At the same time Japan's concentrated exports – cameras, automobiles, television sets and so on – led to a decrease in employment abroad. If we take a global view, rationalizing use of the new technology has decreased the total volume of employment. Despite this, much Japanese research, especially research carried out by the governmental institutions, has not fully taken into account this negative effect. The export market has a strategic and significant meaning for the Japanese economy. The tendency of Japan's export market to excessively export industrial goods and import only primary goods has caused trade frictions and been criticized as "neomercantilism". Due to the international trade balance being a 'zero-sum' relation, there are countries with credit and countries with a deficit. Therefore it is logically impossible for all countries of the world to achieve a balance in trade by following the "Japanese model".

One way to increase domestic employment without decreasing employment abroad is by opening up new markets. New products such as video cassette recorders (VCR), facsimiles, word processors, and personal computers have found new markets and resulted in increased employment. In fact, this has happened in Japan. Except for several entirely new industries, such as the production of software for computers, there is usually more or less an effect of substitution among industries.¹ Therefore, an increase in total employment does not mean that the workers' status is stable. In fact, their status has changed tremendously.

At the micro level, I will briefly discuss two points: some aspects of the competition among enterprises, and the characteristics of the Japanese labour market and industrial relations. Generally speaking, the speed of the new technology's progress is faster than that of earlier technology: if the latter is an arithmetic series progression, the former is, as it were, a geometric series. Therefore, the life-cycle of today's products, which include a number of ME parts such as integrated circuits (ICs), is shorter-lived. Products are especially short-lived when R&D (research and development) is of crucial importance to their development and when competition for R&D is fierce. This causes the competition for markets to become more keen. The new technology blurs the traditional borders among industries, allowing them to easily enter other fields of business. This is a truly borderless economy!

Defeat or delay in the competition for R&D and markets, even for a large company, will cause it to retreat or close down. New technology

¹ For example, traditional records and cassette tapes have been substituted by compact disks (CD).

provides enterprises with new business chances, by which they can grow rapidly and/or successfully enter a new field. In fact, the winners grow and the losers decline.

The Japanese labour market is different from that of Europe and North America: it is more segmented than Western ones. The structure of the Japanese labour market is "dual" or, more precisely, multiplex. Roughly speaking, there is a core group of employees, who work in large companies, whose employment is more stable and who are better treated than those in a peripheral group. The word "peripheral" does not mean less important. On the contrary, they are the essential and indispensable labour force of the Japanese economy. The core group consists primarily of male workers, with some female workers, and accounts for approximately one quarter of the total labour force. The peripheral group consists of the majority of regular female workers, part-timers, elderly workers and *shagaikō* (lit., labourers from outside the firm: the workers in small and medium-sized subcontracting companies) (Tokunaga and Bergmann 1984). The peripheral labour force saves labour costs for large corporations by serving a "buffer" function, providing the required number of workers, which changes with fluctuation in demand. When the introduction of the new technology (for example, industrial robots) results in superfluous labour, a large corporation will carry out the following measures: reduction of overtime hours, curtailment of recruiting, a natural decrease in employment, especially of female workers, and reduction in the number of part-time workers and in orders for subcontracting companies – i.e., in the dismissal of *shagaikō*. Thus, the hardship is transferred from the parent company to the first subcontracting tier, from the first to the second, from the second to the third, and so on. The subcontracting companies at the bottom are very tiny workshops, usually located in agricultural villages, employing a small number of married women as part-time workers (Chūō Daigaku Keizai Kenkyūsho 1985). These workers move from the labour market to domestic work during a recession and therefore are not counted as unemployed. Thus, the rate of unemployment in Japan does not appear to increase.

As is well known, the Japanese trade unions are enterprise unions which generally organize only the core group, leaving the peripheral group mostly unorganized. Therefore the unions do not strongly resist management's measures to adjust employment; in fact, they "understand" and often even support them.

Although the working conditions of the core group are relatively favourable, these workers do suffer some hardships. Although their employment is secure, they must endure many discomforts: one common one is arbitrary transfer or loan to other companies, which may involve

being parted from their families. In addition, they must often work long overtime hours. Excessive overtime is one of the reasons why working hours in Japan are far longer than those of Western countries and why it is not so easy for Japanese management to shorten them (Deutschmann 1987).

3.1.2. The Qualitative Effects on Labour

The qualitative effects of new technology on employees has sparked keen discussion among researchers both at home and abroad. One can classify the opinions into three types.

- 1) Degrading thesis (Braverman's thesis cf. Braverman 1974):
The new technology will degrade workers' skill.
- 2) Upgrading thesis (Hirschhorn 1984, Kern and Schumann 1984):
The new technology will upgrade workers' qualifications.
- 3) Polarization thesis (Düll 1985, Altmann et al. 1986, Brandt 1990):
The new technology will polarize workers into two groups: one group with jobs that will require higher skills but which will be fewer in numbers; the other with jobs that will require less skill and provide the majority of jobs.

Although the polarization thesis prevails in Western countries, the upgrading thesis is held by an overwhelming majority in Japan. Even Japanese trade unions' questionnaires and activities have not proved successful in clearly upholding the polarization thesis (Denki Rören 1983). In contrast to Western countries, the "ME Revolution" in Japan has not brought as much damage to labour as expected. In the mid-1980s, an optimistic view prevailed (Nihon Rōdō Kyōkai 1986); why is the upgrading thesis and its optimistic view so prevalent in Japan?

Our case study on ME problems in a large electronics corporation clarified the following points (cf. Tokunaga and Sugimoto 1990). For male core workers, we could not distinctly validate the polarization thesis. However, this does not invalidate the upgrading hypothesis, because the simplified jobs are performed mostly by female workers and also by some elderly workers. Also, the big corporation optimally automated only the most efficient parts of the entire production process. Those processes not suitable for automation were, as before, left to subcontracting companies, and were still being done by manual labour. Due to these divisions of labour, the polarization thesis cannot fully explain the labour situation in Japan. Furthermore, in Japanese society these divisions of labour seem to be natural, and therefore optimism on ME problems has been prevailing. Yet, many people do not see the other side of the coin: that the core workers are not a majority, but a minority, of total employment.

To dismiss male core workers is difficult, unless the company is faced with certain critical situations. Because so-called lifetime employment is still practiced by large companies, and the wages of these core workers are higher and their potential abilities are of better quality than those of the peripheral workers, management invests a great deal of money in their career development in order to maximize their potential talents, and justify their higher wages. However, management will not do this for female workers, who for the most part do not belong to the core group (Tokunaga and Sugimoto 1990).

3.1.3. How New Technology has Changed Industrial Relations

As one can easily guess after analyzing these matters, in Japan the new technology itself has not, in principle, changed the relationship between labour and management. Rather, the previous industrial relations system has freely accepted the introduction of the new technology.

Because wages are paid according to personal attributes, the rationalization of production processes by ME has not caused serious wage-decrease problems in Japan, unlike in Western countries, where wages are paid according to the skills involved in the job. As long as the core workers' employment is maintained – and this is also the large companies' main personnel policy – the core workers are apt to accept other rationalization measures, such as intra- and inter-plants transposition, the adoption of night shifts, etc. As a result, trade unions as a whole actively cooperate in the drive toward technological innovation initiated by management and so do the employees, due to their ever-present fear that the company might fall behind its competitors, which would worsen their working conditions.

3.2. The Characteristics of Management Strategies

Generally speaking, Japan has been more active in the introduction of ME technology than other industrialized countries. For example, Japan uses more industrial robots. However, the comparative advantage of Japanese industry in the world market does not consist in its level of technology but in the complexity of its production management strategies, which have been developed and deployed by the Japanese corporations but are attributable mainly to the Japanese social conditions.

The Japanese style of management is to pursue economic effectiveness, as symbolized by Toyotism, the production system of Toyota. It emphasizes eliminating waste (*muda*), excess (*muri*) and unevenness (*mura*) in the production processes, not in the machinery itself.

For example, the *kanban* system (or just-in-time (JIT) system) is a system that minimizes inventory and the need for space and thereby contributes to faster market response, better forecasting and less administration. To find defects early in production is a way to minimize unnecessary repairs (Schonberger 1982). These techniques do not depend on machinery but are systems that management uses to produce higher quality goods, as quickly (with shorter lead-time) and cheaply as they can. In short, it is a style of production management that is loyal to the principle of capitalism. Of course, such a management system works more effectively when adopted along with the use of new technology.

We must examine the character of the technology adopted. Though it has actively introduced technological innovation, the strategy of Japanese industry has been to pursue the merits of mass production as far as possible. In connection with this I should point out that the Japanese economy's growth has been mainly based upon excessive exports. The export market is the strategic lever by which the Japanese economy expands its market so as to maintain the mass production system and to reduce production costs. The technology Japan has adopted in the branches where it holds a comparative advantage in the world market – e.g., iron and steel, automobiles, electro-engineering and electronics is the kind of technology by which one can secure the *economy of scale*. In other words, in non-mass production sectors such as aeroplanes and chemical goods – Japanese technologies are still weak.

According to a world-wide field survey on productivity in the automobile industry (Womack et al. 1990: 94–95), the most effective auto plant in the world is the least automated Japanese domestic one. Although there is generally a strong negative correlation between higher levels of automation (technology) and higher levels of effort (productivity), the most automated plant is not always the most efficient. The survey concluded that “high-tech plants that are improperly organized end up adding about as many indirect technical and service workers as they remove unskilled direct workers from manual assembly tasks”.

During the recession after the first oil crisis, large Japanese corporations had to severely reduce their labour force, aiming to achieve a “slimmed-down” management. As a result, the method of ‘lean production’ has been intensified and elaborated.

To accommodate the increase of demand after the recovery of business, the corporations have microelectronized in order to save labour. According to our case study of one large electro-engineering company on the introduction of new technology since the beginning of the 1980s (Tokunaga and Sugimoto 1990), the following features can be pointed out:

- a) In making the decision to invest in automation, the large corporation carefully selects those production processes which can be automated to best achieve the effects of mass production and automates them to the extent necessary to obtain the optimal effects.
- b) Most of the processes of less effective mass production are apt to be left to the peripheral labour force; i.e., to female workers, non-regular workers and/or subcontractors.
- c) Concerning the nature of the technology selected, the main emphasis is placed upon efficiency and improvement of the quality of products, as suggested by such mottoes as "Simple is best!" and "Keep hands from handling products!" In fact, the industrial robots used on an assembly line for electronic durable consumer goods are, as a whole, comparatively simple and cheap ones.² The technology adopted is small and medium-scale and unsophisticated. Again, the humanization of work is secondary in importance.

Concerning the characteristics of the use of labour, it should be remembered again that the Japanese labour market has a multiplex or hierarchic structure. This was discussed above in detail. Here, it is enough to restate some special characteristic of the labour market that give several advantages to the large corporations:

- The peripheral labour force works as a "buffer" against the fluctuations of the market. By using a force of peripheral workers, large corporations are able to easily adjust their total volume of labour corresponding to the fluctuations in business trends.
- As wages are lower and other working conditions are worse for the peripheral labour force than for the core labour force, the utilization of the former helps the large corporations to save on labour costs.
- In the long run, the existence of an immense peripheral labour force has negative effects on the core labour force's own wages and working conditions. It intensifies the competition among workers for the scarce jobs with relatively favourable status; consequently, core workers are apt to stick with their jobs and tamely submit to excessive work.

For the core labour force job security is of highest importance. Therefore, if they are given that security, they are inclined to accede to all of management's rationalization proposals, such as transfer in and out, shift work, overtime, etc.

Summing up, Japanese corporations enjoy certain advantages fostered by the character of the Japanese labour market and industrial relations.

² A similar situation can be found in the automobile industry (Chūō Daigaku Keizai Kenkyūsho 1990: 159–160).

3.3. Some Symptoms of Changes?

New developments in the Japanese economy since the latter half of the 1980s, especially further internationalization of economic activities, has brought new features and problems, some of which pressure the economy to change its structure.

The so-called diversification strategy of management has been accelerated. Many companies have adopted this strategy and still work to increase the variety of their products, in order to adapt to changes. The necessary workers for the new fields of business are normally recruited by such conventional techniques as transfers and loans of regular employees. At the same time, the use of mid-career recruits and temporary workers from employment services (*haken rōdōsha*) has increased as well (Rōdōshō 1989b).

Companies are not only diversifying their products, they are diversifying their labour forces, too. Because the enterprise unions consist mainly of core labour force workers, this causes difficulties for the trade unions. To unionize non-regular workers is extremely difficult. This is a reason for the recent decrease in the unionization rate.

In this regard, the security of regular workers' employment within one firm becomes difficult: the scope of job security is now expanding from within one company to within the company's group.

Trade friction with the U.S. and other nations and upward appreciation of the value of the Yen has motivated Japanese companies to deploy overseas activities such as off-shore production and international procurement etc. At first, the companies' attitude toward international production was reluctance. Nowadays, however, they plan their own global strategy and develop it rather aggressively. For example, such rationalization methods as stopping domestic production of low-priced products and switching to production overseas where wages are lower have been used by the large electronic corporations, which domestically concentrate on producing high value-added products. Therefore, the international division of labour – i.e., low value-added products produced abroad, higher value-added products produced at home – will continue. Although at the initial stage this transfer of production does not decrease domestic employment, because it increases the export of parts, it cannot be denied that in the long run it causes "de-industrialization of the economy" *ceteris paribus*.

To avoid de-industrialization, the companies will have to continue to develop new higher value-added products and to concentrate on producing them. Recruitment of qualified staff and retraining of the employees for this type of production will be one of the most urgent tasks for Japanese companies.

Third, international criticism of Japanese industrial practices has recently become more and more bitter. An example is the long and comprehensive list of demands raised by the U.S. side at the bilateral Structural Impediments Initiative talks. Shortening of longer working hours is one of the issues to receive early attention. Owing to these circumstances, the Government recommended that annual working hours be reduced to 1,800 within fiscal 1992 and launched a campaign with that aim. However, it is clear that the tempo of the improvement is too slow for the aim to be realized by that deadline. Several reasons can be advanced for this, but here the author will point out only that the just-in-time system is an obstacle to the shortening of working hours. JIT demands that the suppliers deliver punctually certain quantities of the products to their customer (parent company) at certain times, which frequently can be as often as three or four times per day. To meet such severe conditions the workers at the suppliers are obliged to do overtime work, even weekend work, if the parent company asks them to deliver at that time. Because of the longer working hours, suppliers are confronted with difficulty in recruiting workers. This difficulty has been intensified by the most recent business expansion. Nowadays a number of small businesses, including some suppliers at the bottom of the automobile industry cannot operate without employing foreign workers, although the government does not permit the immigration of unskilled labourers officially. The problem of foreign workers is another pressing issue at present, but I cannot deal with it here.

JIT has caused another problem: its frequent delivery of the products has given rise to traffic jams on highways. The problem became so serious that even Toyota Corporation, which had hitherto located its net of production facilities only in Toyota city and its surrounding areas, recently decided to set up a new plant not in this base area but in Kyūshū.

Growing interest in environmental problems, a series of scandals in the business world, the crash of the "bubble economy", and serious recession thereafter created an atmosphere critical of business. Reflecting on this situation, even the Ministry of International Trade and Industry (MITI) has criticized the time (usually about four years) between model changes in the automobile industry being too short and recommended it to be longer (about seven years, similar to that of their Western counterparts).

Thus, not only pressure from abroad but also domestic factors indicate the necessity of some reform of existing Japanese production strategy and economic structure. Of course, we should not overestimate the influence or power of public opinion. Therefore, to expect such a drastic reform to be executed in the near future is too optimistic. However, the above-mentioned problems seem to be symptomatic of forthcoming changes.

4. CONCLUDING REMARKS

The crucial defect of contemporary capitalism as a social system is that it makes accumulation an aim in itself and consequently accumulation for accumulation's sake is going on. While it is true that this system has formed the most efficient society, it has been done through the use of capital, a motion-form of value, with the motive being to make a profit. Capitalist society originally had its own self-controlling mechanism, cyclical economic crises; however, it has lost the quality of self-restraint since the advent of the "Welfare State" (exploring this problem is beyond the scope of this paper, cf. Ouchi 1991). Therefore it is apt to continue exceeding the limits of its resources unless there is a control mechanism.

This tendency has been intensified with the emergence of multinational corporations. Contemporary capitalism has been expanding beyond its proper boundary, polluting the air and destroying the environment, thus jeopardizing the existence of human life itself, producing severe labour conditions (for example, *karōshi* (sudden death due to extreme overwork)), and upsetting the proper and well-balanced conditions of the world; in consequence, the rich countries become richer and the poor countries poorer.

This especially applies to Japan, because in Japan the 'producer's ideology' has been the top priority to all and been supported almost unanimously, even by trade unions, since the beginning of industrialization, when the aim was to catch up with the advanced countries. The aims of Japanese trade unions have been apt to merge with those of the employing companies within the narrow sphere of a single company; unions have seldom exerted power beyond their own companies. This situation will not change fundamentally unless Rengō (Japanese Trade Union Confederation), a united national centre formed in 1987, with which 55 principal unions and 5.4 million members are affiliated³, breaks away from 'producer's ideology'.

The fact that Japan has longer working hours than other industrialized countries shows that the 'producer's ideology' is still prevalent.

The necessity of establishing an international labour standard is clear (Sengenberger 1990). International labour standards would help Japan solve the problems we are facing both at home and abroad.

Nowadays, doubts and reflections on production-oriented thinking have begun to appear. Reconsideration and amendment of JIT is one ex-

³ In 1987 Rengō was founded as united centre of private-enterprise unions. In 1989, after many unions from the public sector had joined, Rengō emerged in its present form.

ample. Total fertility rate, i.e., the average numbers of children borne by women during their lifetimes, dropped to 1.53 in 1990, the lowest rate recorded in the dynamic statistics of population. This represents a critical response from women. Because 'producer's ideology' causes women the most suffering, it is no wonder that its severest critics are women. The younger generation has begun to show a quite different consciousness of labour; for example, they dislike taking the so-called '3-k' jobs (*kitsui* (hard), *kitanai* (dirty) and *kiken* (dangerous)). Such a propensity among the young is generally conceived of as to be only negative. Yet it seems to denote a rejection of the conventional ideology.

Although there are voices in Japan advocating a quality life, they are still too weak to effectively exert more influence and social power. International labour standards will doubtlessly provide a common and universal aim for these groups, including the trade unions.

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INTERNATIONALIZATION AND INDUSTRIAL RELATIONS

INTERNATIONALIZATION STRATEGIES OF JAPANESE AND GERMAN AUTOMOBILE COMPANIES

Ulrich Jürgens

ABSTRACT

The questions in this article are directed at the relationship between internationalization and industrial relations. There was a shift in the constellation of actors in the world automobile industry in the 1980s. The internationalization strategy of the Japanese companies became the dominant phenomenon. Public perception also shifted: instead of talking about the power and domination of the "multinationals", the new topic of discussion was the management and production concept of the "transplants".

The term "transplant" has up to now primarily been used to refer to the internationalization of the production structures of Japanese manufacturers. This article deals with the more recent trends towards internationalization in the German automobile industry with a look at the same process in Japan. This reference does not only come from an interest in comparison. The development in the German automobile industry since the mid-1980s has been influenced and shaped to a large degree by the internationalization of the Japanese automobile industry.

CONTENTS

1. Internationalization as a production strategy
 2. Comparing the internationalization profiles of the German and the Japanese car industry
 3. Internationalization as the transplantation of national production concepts
 - 3.1. The concept of transplants
 - 3.2. Segmentation according to core and periphery sites
 - 3.3. Internationalization via "transplants"
 - 3.4. The Japanese threat and the internationalization strategies of German companies
 4. Internationalization of industrial relations? Conclusions and perspectives
- Bibliography

1. INTERNATIONALIZATION AS A PRODUCTION STRATEGY

In the past decades, the automobile industry has been one of the main actors in internationalization. The majority of the automobile companies has an international presence with its products; a minority, on the other

hand, has also internationalized production. We are primarily interested in these structures of international production and their strategic utilization in regard to questions concerning the industrial relations of the home company as well as those of the foreign subsidiaries.

In comparison with the international mobility of goods and investment capital, industrial relations are largely nationally determined. Much has been written about the tense relation between the international character of company activity and the national character of industrial relations (Flanagan and Weber 1974; Banks and Stieber 1977; Kujawa 1975; Kujawa 1980). Most studies on the automobile industry have focused on the two largest U.S. multinational car companies, General Motors and Ford. For a long time they were also the only companies which had firmly established themselves both in North America and in Western Europe. In the 1970s both companies developed a world car strategy. This strategy promised to compensate for the enormous costs of developing the new product generations by using the economies of scale which would correspond to their worldwide sales volumes. In this manner, they believed that they could take advantage of their strengths as multinational companies.

The world car concept did not live up to these high expectations. The aim of standardizing the product was in contradiction to the diverging market trends in the different regions of the world. There was no systematic attempt to standardize process technology and management systems in the world-wide network of plants established in the course of the world car strategy.

There was a shift in the constellation of actors in the world automobile industry in the 1980s. The internationalization strategy of the Japanese companies became the dominant phenomenon. Public perception seemed to shift: instead of talking about the power and domination of the "multinationals", the new topic of discussion was the management and production concept of the "transplants".

The term "transplant" has up to now been primarily used to refer to the internationalization of the production structures of Japanese manufacturers. In the following, I will be dealing with more recent trends toward internationalization in the German automobile industry with a look at the same process in Japan. This reference does not only come from an interest in comparison. The developments in the German automobile industry since approximately the mid-1980s have been influenced and shaped to a large degree by the internationalization of the Japanese automobile industry. My questions are directed at the relationship between internationalization and industrial relations under these conditions.

In industrial relations, our concern is primarily the level of work regulation in the plant.¹ There are close connections between industrial relations, production concepts and thus the form of work regulation in the plant. This has been shown for the automobile industry in a number of internationally comparative studies in recent years (Jürgens et al. 1989; Tokunaga et al. 1991; Sorge and Streeck 1987). A keynote of these studies has been the question of alternative paths for production organization and thus of possible options within the framework of strategies for production modernization and industrial policy. Nationally specific paths, in the sense of a "Japanese model" or a "German model", are discussed in this context (cf. Jürgens et al. 1989: 354ff.; Berggren 1988). With respect to their foreign sites, companies are faced with the following concrete question: to what extent do they consider the production concepts of their core plants to be transferable, or to what extent do they want to transfer them? The answer to this question is clearly relevant in determining which production concepts will prevail.

In the following, I would like to first of all compare the internationalization profiles of the German and Japanese automobile industries (section 2); following this, I will discuss the question of the extent to which internationalization is carried out through transplanting national production concepts from the German or the Japanese automobile industry. For the automobile industry I will be concentrating on Volkswagen as the most important German multinational company.² There was a clear change in VW's internationalization strategy at the end of the 1980s which was primarily influenced by Japanese concepts from Japan and from the "transplants" (section 3). The closing reflections deal with the establishment of international systems of industrial relations in view of the internationalization strategies of the companies (section 4).

¹ In this article I am focussing on plant level industrial relations. I am not looking into the interrelations with the system of industrial relations made up by the triangle of state, unions, and companies which is the classical arena of industrial relations in the sense of J. Dunlop (1958).

² For this purpose I interviewed representatives of management and works council of Volkswagen AG and the International Metal Workers Federation in summer 1991. The following draws also from the Autoproject at the Wissenschaftszentrum Berlin (WZB). This project on "Challenges and Opportunities of the Current Restructuring in the World Automobile Industry for its Employees" was carried out in the context of MIT's research program on "The Future of the Automobile" by K. Dohse, T. Malsch and the author. The project's findings are published in Jürgens et al. (1989); the English version is forthcoming from Cambridge University Press.

2. COMPARING THE INTERNATIONALIZATION PROFILES OF THE GERMAN AND THE JAPANESE CAR INDUSTRY

In this comparison I will be limiting myself largely to the automotive area and to well-known car producers in both countries. Both dominant multinational companies General Motors and Ford already owned production sites in Germany (referring in the following to the Federal Republic of Germany, thus up until 1990 West Germany) which they were able to operate again after World War II (WW II). Their share of the entire car production in Germany was 42% in 1990. To this extent, a part of the German automobile industry was subject to the internationalization strategies of these American manufacturers from the start.

Table 1: Strength of German roots of the German automobile manufacturers

	Sales in F.R.G. 1990 in %	Change 1990 vs. 1980	Production in F.R.G. 1990 in %	Change 1990 vs. 1980	Labor Force in F.R.G. 1990 in %	Change 1990 vs. 1980	Purchases in F.R.G. in % of total supplies (1987)
VW	31	(-1)	59	(+2)	64	(+12)	85 ⁷
Mercedes Benz	30	(0)	90	(-1)	78	(-3)	90
BMW	38	(-8)	98	(0) ³	85	(-1) ³	84
GM (Opel)	6 ¹	(-13) ²	14	(-10) ⁴	6 ⁵	(+20) ⁶	78
Ford	5 ¹	(-17) ²	17	(+30) ⁴	11 ⁵	(+13) ⁶	70
Porsche	28	(-19)	100	(0)	100	(0)	95

¹ sales in 1988.

² change 1988 vs. 1982.

³ without motorcycles.

⁴ change 1990 vs. 1982.

⁵ labour force 1990 vs. 1982.

⁶ change 1988 vs. 1980.

⁷ only VW-AG; at Audi: 94 %.

Sources: MVMA (various years); Sauer (1991: 32).

It becomes clear from Table 1 that the German site plays a very differing role for the automobile companies with production in Germany:

- The two American companies General Motors and Ford both produce approximately one seventh of their world production at their German sites; this has a considerable but not decisive importance in the companies as a whole. However, both companies have important management functions located in Germany: in the case of Opel, these are the

- development and central planning departments for General Motors Europe; in the case of Ford, these are fundamental parts of research and development (R&D) and production planning.
- The Volkswagen corporation produces around 60% of its cars in Germany and two thirds of its workers in the corporation's two companies, VW AG and Audi, are employed here. With VW-Sachsen, a third company is emerging in the former GDR – however, in contrast to Audi and VW AG, without its own central functions like R&D and production planning.
 - Mercedes Benz is still exclusively a German company in the area of car production; it only has international production sites in the area of trucks and commercial vehicles.
 - BMW and Porsche, finally, are the firms which are most closely limited to Germany in their production and work force.

The German automobile industry is also largely rooted in Germany in terms of relations with suppliers. In 1987, VW AG still received 85% of its purchasing volume from domestic sources, while Ford and Opel even received 70% and 78%, respectively (Sauer 1991: 32).

If we exclude sales, the rootedness of the Japanese automobile manufacturers in Japan is still very great, but it has been sharply reduced in the course of the 1980s, as table 2 shows. Honda and Nissan have the most strongly internationalized production structures. Of the Japanese companies selected, Toyota is still most firmly rooted in Japan.

Table 2: Strength of Japanese roots of the Japanese automobile manufacturers¹

	Sales in Japan 1990 in %	Change versus 1980	Production in Japan 1990 in %	Change versus 1980	Labor Force in Japan 1990 in %	Change versus 1980
Toyota	55	(+14)	87	(-13)	69	(-31)
Nissan	44	(-4)	80	(-10)	90 ³	(-10)
Honda	36	(+13)	70	(-30)	85 ²	(-8)
Mazda	35	(0)	84	(-16)	n.a.	n.a.

¹ not including the group companies.

² only for passenger car.

³ in 1988.

Sources: JAMA (various years); The Economist Intelligence Unit (1991).

If we compare the internationalization strategies of the German and Japanese manufacturers in the area of car production it becomes clear that:

- Volkswagen was the only German automobile company that pursued an internationalization strategy with regard to its production system up to now. Originally it aimed primarily at Third World countries in which potential market growth was seen (Brazil, Mexico, Nigeria, South Africa, China). An exception to this strategy of "opening up the periphery" was its Westmoreland site in the U.S.A. which started production in 1978. Giving up the U.S. production site in the middle of the 1980s went hand in hand with the development of Volkswagen towards a European oriented corporation (the shares of Europe on the corporation's sales, production and work force in 1990 were 74%, 84% and 76% respectively). At the beginning of the 90s, the company is setting up new production sites in Southern Europe, Eastern Europe, and the eastern part of Germany.
- Up until the beginning of the 1980s, direct investments of the Japanese companies also went to production sites on the periphery. With the establishment of "transplants" in North America and then in Western Europe we see a decisive change in strategy at the beginning of the 1980s; starting then, internationalization meant a triad strategy building up their presence as manufacturers in North America and Western Europe.

Connected with the change in strategy in both cases is a difference in the relationship between domestic and foreign sites. Up until then there was a hierarchy in which the domestic core plants were outfitted with the respective company's latest technology and delivered their products in the core countries of the triad, whereby the peripheral plants applied "used technology" to supply the peripheral countries. The change in strategy now undermines the central position of the core plants. They are now confronted with parallel plants in foreign countries which are equipped with modern technology and operate under modern management concepts. The latter are now also "world market" factories able to meet the demands of the triad markets and even to export to the home market of the company. This holds true for the "transplants" of the Japanese companies and for some of the new production sites of the VW-Group. As a consequence parallel plants are now competing on the basis of comparable technology and with the same products in this international production system.

Parallel production of the same model at different sites was practiced early by General Motors (GM) in North America and became the basis for a system of control and systematic competition there. There are obvious advantages for central management control: better transparency for evaluating plant performance and exerting pressure on the laggards to

match the level of performance of the best factories. Thus parallel production also became an important control instrument for management at Ford and GM when they integrated their European organizations in the 1970s (cf. Jürgens et al. 1989: 196ff.).³

The installation of structures of parallel production obviously has far-reaching consequences for industrial relations. We will be returning to this below. In the past, parallel production in European companies, to the extent that it took place at all, had a totally different purpose. A system of main and satellite plants emerged with the rapid growth of these companies. If these were "single purpose plants" for the production of one model, then the factory works councils of the main plants attempted to preserve production structures with which one product could be produced exclusively and one product parallel with one of the company's other plants. In view of fluctuations in demand between the products, this would help safeguard employment in the core plant. With reduced demand for one product, the production of the second model could be increased to preserve jobs. Thus both basic models "Golf" and "Polo" were produced in Volkswagen's core plant in Wolfsburg during the 1980s, in the satellite plants in Emden and Pamplona (Spain), on the other hand, only the Passat and Polo were produced respectively. In the framework of the new international production structures at VW we see a reversal of this situation – the core plant with its main production line only has a limited conversion flexibility, and the new plants in the corporate group are so designed that several basic models can be produced with their equipment. (The Japanese transplants generally have a very high degree of process flexibility which is assured through two or three basic models that can be produced on the same production lines.)

³ Whether in Great Britain or in the U.S.A., the tenor of leading industrial engineers we interviewed in our WZB project dealing with the restructuring of the automobile industry was the same: "We endeavor to achieve a production lay-out and installation which is as compatible as possible. When we now plan new equipment, then the plants will be made exactly the same, even the colors, so that the people in England don't have any more excuses (an industrial engineer of a major European car company). "The division specified the tooling for work models and provided factories with the same equipment" (an industrial engineer of an American company quoted in: Jürgens et al. 1989: 197).

Table 3: Production sites of car assembly and planned additional capacity of the VW group 1990-1995 (in 1000 vehicles)

Concern company (assembly plants)	Production 1990	Additional capacity – 1995	(New plants)
VW AG/F.R.G. (Wolfsburg, Emden, Hannover)	1,644		
VW Sachsen/F.R.G. (Mosel I)	2	250	(Mosel II)
Audi AG/F.R.G. (Ingolstadt, Neckarsulm)	430		
VW/Belgien (Brussels)	206		
SEAT/Spain (Barcelona, Prat, Pamplona)	533	400	(Martorell)
TAS/Jugoslavia (Sarajewo)	37		
SKODA/C.S.F.R.		400	(Mlada Boleslav)
BAZ/C.S.F.R.		100	(Bratislava)
MPV/Portugal		80	(Setubal)
VW/Mexico	214	150	
Autolatina/Brasil	265		
Autolatina/Argentina	8		
VW/South Africa	60		
VW/China (Shanghai)	19	300	(Changchung)
Total	3,418	1,680	

Source: Volkswagen: Annual Company Report 1990

Table 3 shows the current sites structure of VW's assembly plants and their production output for 1990 and compares this to the currently projected expansion and the additional capacities this will create. With respect to the newly created international production structure the following can be stated:

- Despite the possibility of surplus capacity, VW is planning additional capacity which exceeds the production volume of 1990 by almost 50% worldwide. A projected market share of almost 20% is projected for Europe (1990 around 20%). Volkswagen is thereby contributing to the heating up of competition in the 90s which can be expected in any case following the agreement between the European Community (EC) and Japanese Ministry of International Trade and Industry (MITI) to gradually lift the market entry barriers towards Japanese cars into West Europe.
- The competition for the core plant Wolfsburg becomes tougher: the production of the A-model (Golf) was the privilege of the core plant in Wolfsburg, in the future it can be produced at six sites: in Wolfsburg

and Mosel (the new site in the former G.D.R.), in Brussels (Belgium), in Puebla (Mexico), in Pamplona (Spain) and in the future also in Changchung (China).

- With the new sites, the Volkswagen company is growing on the periphery of Europe, in countries with low wages (the wages at Skoda are presently around one tenth of those at the VW AG) and weak union structures. The same pattern is also discernable in its expansion strategies outside Europe, where growth is on the fringe or outside the areas of the other two triad powers.

This pattern of growth for the future contrasts with that of the Japanese companies. Here the core countries of the triad powers are the focal points of expansion. On the basis of the most recent announcements (Oct. 1991), a capacity of 1.2 million vehicles could emerge in Europe by 1995 (after 205,000 in 1990), and more than double the 1990 production figure of 1,320,000 vehicles could then be produced in the U.S.A. (around 2,700,000). In the United States alone the Japanese cars assemblers established eight new plants (not including the joint venture between General Motors and Toyota NUMMI (New United Motor Manufacturing Inc.)), and three in Canada; in Western Europe the new production sites are all in the U.K. (two existing production sites have been taken over in Spain, a Dutch plant of Volvo will be restructured as a joint venture, probably under Japanese management. With this focus of growth the Japanese manufacturers are obviously not counting on the advantage of lower wages. They are, in principle, facing strong union organizations who are observing this development with Argus eyes, although partly from the outside. This is also true for the political organizations and the public in these countries. The Japanese producers are going into the "lions den" to contest for market shares with the established companies! If they are neither counting on low wages nor on the established actors showing a particular readiness to make concessions, then what advantages could they bring to bear for themselves?

3. INTERNATIONALIZATION AS THE TRANSPLANTATION OF NATIONAL PRODUCTION CONCEPTS

3.1. The Concept of Transplants

"Transplants" is a well-established term for the new plants of the Japanese companies in North America and Western Europe. The term is even used for the joint ventures of Japanese and American car companies – NUMMI,

Diamond Star and CAMI (Canadian Automobile Manufacturing Inc.). The term is obviously being used analogous to the transplantation of organs from one body to another. This has two implications: on the one hand it means transplanting a part of the organ donor to a foreign carrier and it is not clear whether the transplanted organ will be accepted or rejected; on the other hand, it means that it is not only a minor operation for the recipient, but requires that the entire "body" adapt and adjust itself to the new "organ". It fits into the analogy of an organ transplant that with North America and Great Britain the Japanese manufacturers have chosen two production sites which are considered "sick" by many observers, whose automobile industries showed especially serious crisis features at the beginning of the 1980s (cf. Dertouzos 1989; Dunnett 1980).

However, the analogy of an organ transplant is misleading. It is probably unclear to everybody what the *necessary and sufficient* conditions are which make Japanese production systems function in the way they do. Thus, for the Japanese companies going abroad, it is also a question of trial and error, what they should take with them. In any case, it is not technology and not certain special skills or work rules which would have to be transferred. The "transplant"-discussion rather concentrates on three elements:

1. The production control system oriented to the "no buffer/no error" ideal together with a work organization based on teamwork, a multi-skilled work force and permanent improvement activities;
2. a system of industrial relations with the "three pillars" of lifetime employment (for core employees), seniority-based wages and company unions;
3. a supplier/subcontractor system in the well-known pyramid structure and long-term relationships within the company group.

Obviously, the process control/work organization improvement system lies at the heart of the matter; its elements and implications are currently discussed widely in the West under terms like "Toyotism", "Ohnoism", "lean production system" (cf. Dohse et al. 1985; Wood (unpubl. paper); Womack et al. 1990).

What is it what the German management might consider to take with them when going abroad with production? The following two elements could be regarded as typical for the "German way" to run production and to organize work:

1. The central role of qualified skilled workers and the system of vocational training by apprenticeship;
2. the system of plant level industrial relations which gives the works councils a strong degree of influence and in some areas co-determina-

tion rights concerning decisions on personnel policy, training and – to a lesser degree – on production organization. The basis of this system is the German labour law. It exerts strong pressure to find consensus solutions and forces “jointness” in developing plant level solutions.

In the following I will mainly deal with the first element. The most striking contrast when we compare the “Japanese” and the “German” way to run production is in the area of skills formation and labour deployment. The German system is traditionally oriented towards technical solutions (Jürgens et al. 1989: 354ff.), and the qualified skilled workers (*Facharbeiter*) are regarded as the most valuable asset to run the automated equipment. These skilled workers have gone through a solid apprenticeship at the beginning of their career (cf. about the “dual system” of apprenticeship training; Streeck et al. 1987); they are the specialized problem-solvers who also receive most of the additional training. Ordinary production workers are traditionally of secondary importance; often they are foreign workers (*Gastarbeiter*) working under what is still regarded in Germany as the “American concepts” of Fordism-Taylorism. As a consequence, production work in the “German way” is largely polarized between the poorly-trained unskilled workers in direct production and the qualified skilled workers in the off-line and indirect areas. Both direct and indirect workers have the same qualifications in the Japanese plants and there is no differentiation of status between them. Initial (apprenticeship) training and continuous training in the German system is still oriented to creating an elite of core workers with special technical competence; in the Japanese plants, training is a matter concerning *all* workers.

At the center of the “German model” is the qualified skilled worker (*Facharbeiter*) and a specific acknowledgement of skilled work as a “profession”. This understanding also includes an interest in one’s work, a willingness to accept comprehensive responsibility (also crossing over the borders of their own task area), and a large degree of self-regulation in carrying out work. Almost all of the first-line supervisors, the *Meister*, in German plants have a skilled trades qualification and have passed an external examination at the local Chambers of Industry and Commerce after having gone through an extensive additional training course with a focus again on technical training. These *Meister* would also be the supervisors in non-skilled production areas and thus represent a high technical problem-solving potential also in these areas. The *Meister* form the link between the direct workers on the shop floor and the skilled workers of maintenance as well as the technicians and engineers from the technical staff functions. It is the line *Facharbeiter* – *Meister*, technicians, and engineers which form the crucial axis, traditionally, in the German plants. The *Facharbeiter* tradition and the strong posi-

tion of the works councils based on the Works Constitution Act (*Betriebsverfassungsgesetz*) did not support a "job control" attitude like that in Anglo-Saxon countries to emerge on the shop floor. The relationship between the works councils and management developed on the basis of negotiating interests against the background of the situation in the individual factory. This system takes the different interests into account and serves to balance them out. This, in turn, ensures the work force's acceptance of the conditions of employment.

Taylorism established itself increasingly in the German automobile plants after WW II, and the *Facharbeiter* tradition was pushed aside. As it was generally recognized at the beginning of the 1980s that Fordist and Taylorist principles for production organization were no longer appropriate for a flexible, highly mechanized production, a model for production organization emerged against the background of the skilled worker tradition and the co-determination rights of the works councils which aimed at the increased deployment of skilled workers, including now direct production tasks as well. This went along with production concepts inspired by the vision of "computer integrated manufacturing" aiming at high degrees of automation even in areas like final assembly and low batch production, where until then human labour had prevailed. This meant increased demands for technology-related qualifications and independence in completing tasks. The qualified skilled worker received an even more pivotal role in the modernized plants of the German automobile industry.

3.2. Segmentation According to Core and Periphery Sites

To what extent can we speak of a "transplant"-strategy of the German car manufacturers? In the following I will concentrate on Volkswagen's foreign production sites. In view of the central role of the skilled workers for German production management, I specifically want to look at the system of skill formation and the training of skilled workers in VW's foreign production sites. I will briefly touch the aspect of industrial relations in the first point. The following observations can be made:

1. No attempt has been made to transplant the institutions of jointness and co-determination to the plants abroad. Obviously, this system is accepted in Germany as it is stipulated by law, but plant management seems not to see benefits in establishing similar institutions on a voluntary basis in its foreign plants. At the same time, the experience of having to deal with the strong unions-based works council has not instigated German management to actively pursuing a union-free environment for its plant.

The existence of a union and its rights of representing worker's interests was never questioned anywhere.

The company adopted existing organizations and the peculiarities of the country's system of industrial relations. VW South Africa played a pioneering role in the recognition of the black union COSATU. The VW works council supported the struggle against apartheid.⁴ The recognition of unions at foreign production sites, however, does not mean that the social partnership between management and the works councils which exists in Germany (cf. Brumlop and Jürgens 1986) is also practiced there.

There were intense labour conflicts between the workers and management in Brazil and Mexico (cf. Dombois 1987; Doleschal 1986). Brazilian union circles attribute the transfer of management to Ford in the framework of the joint venture Auto Latina to the fact that, in view of imminent restructuring, VW preferred to avoid direct confrontation. At many sites, Ford had acquired the reputation of being a hardliner in questions of industrial relations.

2. In contrast to the co-determination system, German management put high emphasis on introducing a German-type apprenticeship training of *Facharbeiter* in its foreign plants. Apprenticeship training was given considerable importance when compared to the conditions in the host country and other multinationals there. This holds true particularly for the Third World plants. Thus, before starting production at the new assembly plant in Pueblo, Mexico, VW set up its own training school for skilled workers; the training curriculum was almost identical to the German *Facharbeiter*-training, and in the early phase even the trainers were Germans. We can observe a similar pattern in most of the other new locations. Also, the VW plants generally take in more apprentices than other multinationals do in these countries. Thus, in 1991 VW South Africa with around 8000 employees trained about 300 apprentices, whereas the South African joint venture of Ford and Mazda with 5000 employees had only around 70 apprentices in the system.

At the new site in Shanghai, China, which was set up in 1985, they immediately set up a facility for vocational training to train skilled workers. As in the German dual system and in contrast to Chinese practice, this facility is not directly a part of the company and with a largely German curriculum; it trains around 200 apprentices.

In Germany since the 1970s, the intake of apprentices for training as skilled workers became more and more disconnected from the projected needs of the skilled workers' departments. At the beginning this was

⁴ Thus, for instance, John Gomono, President of the National Union of Metal Workers of South Africa spoke at company meetings at VW in Wolfsburg.

due to general labour market and youth policy considerations and a corresponding pressure by works councils and politicians to take in more apprentices. But in the 1980s, management saw the advantage of having "surplus" skilled workers who could be deployed directly in the production on unskilled jobs. Because of mass unemployment, these young skilled workers (*Jungfacharbeiter*) could hardly quit and look for another job. Thus, they had to accept direct production jobs which they and their colleagues in the skilled trades departments regarded as having "low value". But management could now use their competence to install more "intelligent" work structures (Jürgens 1989: 132f.). This strategy could not be implemented in most foreign plants. The graduates of the training schools regard themselves as an elite, and because of the labour market conditions, they can easily change employers. In addition, in most of these countries they have even less prestige than in Western Europe. The young skilled workers at the Brazilian VW Plant San Bernado, for example, went on strike in protest against their deployment in production jobs recently.

3. It is remarkable that in the case of the American plant Westmoreland, which was the only case where Volkswagen tried to get a foothold in the other two triad locations, VW followed even more a course of "adaption" instead of "application" of German concepts.

The division of labour (job classifications, job demarcations), the role of seniority in personnel measures and the principle of hire and fire, and the forms of worker representation and conflict that could be seen at the production sites in the U.S.A. were exactly like those of the Big 3 (cf. Dombois 1982: 249). This is also true for the role of the skilled worker and skilled worker training, which is a particular weakness of the American system (cf. Dertouzos et al. 1989: 81). VW did not make any particular efforts of its own to cover the scarcity of skilled workers, which was a particular problem at the Westmoreland site. Whereas VW has been setting up its own apprenticeship training system in all of its other foreign affiliates it did not do so in the U.S.A. Thus Dombois reports that in the situation of a particular skilled worker scarcity, the Westmoreland management tried to attract skilled workers from Detroit and hired almost one hundred British skilled workers. Dombois (1982: 249) summarized his observations of the Westmoreland plant in 1986:

The workers in the U.S. plants produce the same or at least similar products (the Golf/Rabbit) on the same equipment as their colleagues in Wolfsburg, but the conditions under which they work, are compensated and are employed differ considerably from those in German plants. Also the manner in which plant conflicts and

work and employment conditions are settled is different in German and American plants.

The Westmoreland site closed in 1988. A lot of reasons have been given to explain this decision which is still discussed controversially among VW's management. The intention to use the low cost production basis in Mexico and Brasil did play a role in that decision. Another reason was the rather poor performance of the plant in terms of quality and productivity. Either the plant had no warning time or it had already itself given up by the time of the decision to close Westmoreland down as it did not seem to make any efforts to turn itself around. The plant did not take part in the process of the establishment of "new industrial relations" in the U.S.A. (see Katz 1985), with the abolition of seniority-based practices for worker deployment, increased flexibility and participation in the framework of team-oriented work reforms. There were no attempts at using new concepts to achieve an increased efficiency and quality in production. We can speculate that management instead considered large investments in new technology as necessary – just as it saw the increased use of technology and the mastery of advanced computer-assisted technology systems as the best security for the future in Germany. At the end of the 1980s, machinery and equipment of the Westmoreland plant were shipped to China, where it serves as the hardware of VW's second plant at Changchung.

The picture is not yet complete, as we have not dealt with the new plants of Volkswagen in the south and east of Europe. For the international production struture up to the 1980s, we have seen the attempt to transfer some of the German skilled workers' tradition. But this was done without building on it and developing skilled worker based high-tech production structures there.

3.3. Internationalization Via "Transplants"

The history of how the Japanese "transplants" in North America and Western Europe were established will not be reported in detail here. For North America this has been, in contrast to VW's experience, a "success story" up to now. The following factors help explain why:

1. Products: the shorter model change cycles and the wide spectrum of products on the basis of a higher product flexibility as well as the price and product quality.
2. Site selection and start-up preparation: a high selectivity in the choice of personnel, careful training of the core workers, who in part went through an extended training in Japan; heavy emphasis on training also for direct production workers.

The start-up curve was flat and extended over a long period of time. In this phase, possible sources of defects in the process lay-out, in qualification and diligence of the work force as well as in the quality of supply parts were carefully eliminated before the plant switched over to full operation. This was especially true for the early plant openings, like Honda's Ohio plant and Nissan's Tennessee plant, which had a first run with motorcycle and pick-up production respectively.

3. Political support: this concerns less the subsidies from the state or community, which Volkswagen also received in Westmoreland. Worthy of note is, in my opinion, rather that the American government did not undertake anything to compensate for the unequal cost burdens between old sites of the Big Three and the new transplant sites. As governmental systems for health insurance, old age pensions and unemployment compensation in the U.S.A. are very inadequate, the companies have established company internal systems on the basis of contractual agreements with the UAW (United Automobile Workers). These systems place a heavy burden on plants which have been at the same site for decades, have a high average age of the work force and a large number of retirees (cf. Mosley and Schmid 1991).⁵ Management thus gave the industrial policy goal of modernization a clear preference over socio-political objectives.
4. The fact that a majority in the union and leading union representatives accepted that fundamental changes in the work practices of plants were necessary and that local resistance to such changes should be overcome. This meant a fierce fight against union opposition to the changes, which later formed the "New Directions Movement" (cf. Parker and Slaughter 1988; Mann 1987).
5. Last but not least was the new plant management practiced by the Japanese in their "transplants". Here they were obviously able to connect cost efficiency and quality performance with working conditions acceptable for the American employees.

It is well known that of the Japanese transplants only the joint ventures NUMMI (Toyota – General Motors), Diamond Star (Mitsubishi – Chrysler), and CAMI (Suzuki – General Motors), the Mazda Flat Rock site, which is partially a subcontractor of Ford are organized by the UAW. An attempt at organizing at Nissan in Smyrna failed spectacularly. First stu-

⁵ Iacocca put the average U.S. health care costs at around \$ 700 per vehicle (Financial Times, Sept. 1, 1989); the takeover negotiations between Ford and Chrysler have apparently foundered on the unfunded \$ 3.6 billion in pension obligations that Chrysler has from the 1987 takeover of American Motors (Handelsblatt, July 11, 1991: 19).

dies have shown, however, that the existence of union organization did not lead to fundamental changes in the plant management practices. The research done by Abo et al. has shown no significant differences between the eight automobile and parts "transplants" they investigated in North America (The Institute of Social Science, University of Tokyo, 1990).⁶ An explanation for this could be that the Japanese management surveyed acted as if a Japanese type of union were present.

I do not have any further information over the forms of interest representation and conflict regulation in the non-unionized transplants in the U.S.A. It appears to me that "institutions" like presidential meetings, common cafeterias, open offices, involvement circles and teamwork have up until now functioned successfully as a substitute for an institutionalized system of interest representation with shop stewards and shop committees.

The "transplant" approach, i.e. the attempt to replicate a Japanese management and production concepts, holds true for all new plants of the Japanese car manufacturers in the U.S.A. and Canada (as well as in the U.K.). The differences between the "transplants" are small in this respect (The Institute of Social Science 1990: 95; Abo 1990). Possibly the most important success of the "transplants" was their demonstration effect – it works under foreign conditions, and it is accepted by American (and British) workers.

In surveys of and statements from employees of the Japanese transplants, two important positive points for Japan-oriented plant management from the point of view of their employees became apparent time and again:

1. "Management cares" – grievances are taken seriously, a solution to the problem is attempted promptly, those affected are included in problem solving and taken seriously as experts with their practical knowledge.
2. "Management shares the burden" – the attitude prevalent in Western plants, in which all problems are passed on down the hierarchy, does not exist here, privilege structures and status differences are clearly reduced. There is a high degree of sensitivity and recognition of this among the American workers (and British workers), precisely against

⁶ "...the existence of a labor union does not necessarily restrict the application of Japanese management on the shop floor." (The Institute of Social Science, University of Tokyo, 1990, p. 49). Abo's study had a surprise result here. In the indicator "adjustment to an American style" or "transfer of the Japanese style" which ranged from 1 – 5 the factor "union" scored 4.4, although only one of the eight companies surveyed was unionized.

the background of thinking in class categories or in terms of "top" and "bottom".

The overall success of the "transplants", their efficiency, quality record and social stability have already led to the conclusion that Japanese production concepts are universally employable (Womack et al. 1990; Murata and Harrison 1991). There are, though, a number of points which speak in favour of still considering the question of the successful transplantation as open:

1. The new plants were largely built as clones of Japanese plants, the products had already been run in Japanese plants, production methods had been debugged. Each problem at the "transplant" projects, which were very much in the limelight, definitely got a lot of attention from management. This might change in the future when the American plants have to stand on their own feet and might be regarded as competitors by their Japanese sister plants.
2. The development chances of the "transplants" and of each employee currently appear to be unlimited. There are many possibilities for promotion and improvement in these rapidly growing organizations, and this could help console an employee in the face of currently depressing and stressful working conditions.
3. Fundamental elements of the Japanese system, above all those which promote the mixture of individual incentive and competition within the work force (through personal appraisal, promotion policies) on the one hand, and the social integration on the other hand (the multitude of clubs, organized leisure activities, etc.) are missing in the "transplants". The wage system generally corresponds to that of the traditional U.S. plants (cf. Abo 1990).

In regard to their taking over the American wage system Abo said:

This is an example of an unfavorable 'hybrid' between Japanese and American-style practices, so we believe this wage system is of a somewhat transitional character, during which time the Japanese carmakers are trying, first of all, to destroy the traditional inflexible systems in the US. (Abo 1990: 11)

In my opinion there are many indications that the further development will lead to further *"hybrid forms" between Japanese and American management styles*. The development in the union-organized transplants is conspicuous for this. The New Directions Movement, which is critical of the Japanese style of management, could gain more influence here as of late. This school of thought, which has long been a strong faction in the NUMMI plant, recently won the majority in a local union; some modifi-

cations in the previously practiced team system in Flat Rock were carried out under pressure from this movement.⁷

The growing body of literature critical of the Japanese management practices in the "transplants" refers time and again to the issues of health and safety, speed-up, favouritism (in the appointment of the team leaders), equal opportunities, recruiting and promotion of minorities (Berggren et al. 1991; Fucini and Fucini 1990). These correspond to the traditional conflict points in American industrial relations (seniority is another). The Canadian Autoworkers' Union (CAW) put together an explicit catalogue listing the elements of Japanese production methods that the union is not willing to accept.⁸

⁷ Instead of the appointment of the team leader, he or she is now elected by the team.

⁸ "1. We reject the use of Japanese Production Methods which rigidly establish work standards and standard operations thereby limiting worker autonomy and discretion on the job.

2. We reject the use of techniques such as Kaizen (pressure for continuous "improvement") where the result is speed-up, work intensification and more stressful jobs.

3. We oppose workplace changes which limit mobility, weaken transfer rights and erode seniority provisions.

4. We reject the introduction of alternative workplace structures and employee-based programs which purport to represent workers' interests while circumventing the union.

5. We reject efforts to shift compensation from wages to incentives and to individualize the rewards of productivity improvements.

6. We oppose the process of union nomination or joint appointees to new jobs created to perform company functions.

7. We oppose initiatives which undermine worker solidarity-structures which require conformity of company-determined objectives and which divide workers into competing groups internally, nationally and internationally.

8. We oppose the use of peer pressure in company campaigns to discipline and regulate the behavior of workers.

9. We reject workplace reorganizations which threaten job security by sub-contracting or transferring work outside the bargaining unit.

10. We oppose efforts to render work places so lean that there is no place for workers with work-related, age-related or other disabilities.

11. We oppose efforts to involve and reward workers in the systematic elimination of jobs or the disciplining of other workers.

We support efforts to involve and empower workers, to increase worker dignity, to produce quality products with pride, to make jobs more rewarding and work places more democratic. These objectives will be achieved through *our own agenda for change*, our own demands around: training, guaranteeing health and safety, technology, strengthening mobility rights, improving jobs, strengthening affirmative action, improving the work environment, strengthening the union."

The picture of a dualization of the Japanese system of industrial relations with a traditionally America-oriented area and a Japan-oriented area is already almost outdated today. On the contrary, an immensely differentiated structure has emerged since the 1980s which also shows a number of concepts at the Big Three which were taken over from Japan. These follow with traditional organizational patterns. At the same time, with the new GM company Saturn we see the emergence of extensive union co-determination which has some points in common with the German system.

In Great Britain, on the other hand, we have up to now found a picture of a more heavily dualized structure of British and Japanese industrial relations. This is true despite the fact that the plants here are union organized. Thus the Amalgamated Union of Electrical Engineering Workers (AUEW), which organizes Nissan Sunderland, is also represented in the traditional British sites of GM, Ford and Austin Rover. The British union structure is too fragmented, however, for this to bring about a unified policy and a balancing and coordination of demands within the union.

The influence of the union in questions of plant organization and labour deployment is minimal anyway. There is no shop steward organization and no shop committee of elected union representatives at Nissan Sunderland as in the traditional British car plants. Instead, there is a "company council" with an equal number of representatives elected by the work force and representatives of management. Management gives information through this council, and bargaining and conflict settlement takes place here. It is reported by Nissan workers that there is no union activity in the plant. It is rather seen as embarrassing to be a union member (Willi-amsen 1991: 7).

Summarizing we can state that the basic principles of plant management have been successfully transferred into the new triad plants by the Japanese companies. However, this is not true – and the attempt has not been made – with respect to the system of industrial relations as we know it from Japan. Except for some guarantees of long-term employment security, neither the system of seniority-based wages (linked to personal appraisal systems) nor the system of company unions has been transferred. In the host country, the arrival of the transplant has triggered off a process of change in the system of industrial relations industry-wide. It cannot be expected that the "transplants" will not be affected by the feedback of the process which they have initiated. (The same might be true in the case of changes in the supplier relationships which I am not discussing here).

3.4. The Japanese Threat and the Internationalization Strategies of German Companies

Let us return to the German companies, and here above all to Volkswagen. In view of the perspective of a common EC and intensified competition with Japan, either as importers or as producers in Europe, and in view of the perceived differences of performance among the various concepts of production concepts (in the spirit of Womack et al. 1990), we can see clear changes in the internationalization strategies of the German manufacturers. Two directions of thrust can be observed:

1. The attempt to take advantage of the internationalized production organization through concession bargaining, in which concessions at one site are held up to another site as an example, with the threat of shifting production (this practice is called "whipsawing" by the union organization in the U.S.A.). A driving factor behind this are the high, and publicly widely discussed, cost burdens of the German site. This pertains to wage costs,⁹ working hours and taxes. A second driving force arises from the recognition of the productivity gap between German manufacturers and their international competitors and the attempt to become lean producers. The MIT study (Womack et al. 1990) has had a great impact in this respect.

⁹ Wage Costs in the Car Industry – an International Comparison (D-Mark/Hour 1990)

Country	Wage costs earning	Gross hourly
F.R.G.	41,87	24,30
France	26,01	13,76
Italy	31,67	14,59
The Netherlands	31,20	16,86
Belgium	31,83	16,93
Great Britain	25,58	18,27
Sweden	23,72	24,56
U.S.A.	32,07	23,76
Japan	28,64	22,03
Spain	29,43	17,13

Source: VDA Pressedienst (VDA = Association of German Auto Industry), No. 2 (Jan. 30, 1991).

According to a recent study of McKinsey consultants the German companies lead the cost hierarchy and exceed the cost level of Japanese companies by 40–50%. With Japanese companies taken as hundred, Mercedes Benz 140–150, BMW 140–150, VW 140, Ford 130–135, GM (Opel, Vauxhall) 130–135, Volvo 125–130, FIAT 120–125, PSA (Peugeot, Citroen) 120, Renault 120, Nissan U.K. 110–115 (Der Spiegel No. 27/1991, p. 87).

2. The attempt to use the internationalized production structure for the introduction of new plant management practices in the sense of an explicit adoption of Japanese concepts for production and work organization. The newly established production sites appear more suitable for this endeavor than the core plants in Germany itself, where the traditional forms are deeply rooted in the structures and ways of thinking of management, the unions and the works councils.

The two new directions of thrust in internationalization will be dealt with in more detail in the following account. Regarding "concession bargaining", the situation in Western Europe in the 1980s was different from the situation in North America, where the American manufacturers were already losing market shares and plants had to be closed due to overcapacity. In Western Europe many companies experienced a lack of capacity due to a booming market. The union pressure to shorten the work week and the high investment in fixed capital contributed in advancing the issue of plant utilization as the central "whipsawing" theme in Western Europe by the end of the 1980s.

The chord had already been struck when the German Metal Workers Union, which organizes the employees in the car industry, pushed through its demand for shortening the working week. With a long annual vacation (30 days), high absenteeism due to sickness (around 10%), and long paid breaks during working hours (at Volkswagen 64 minutes per shift), the reduction of working time meant that the actual "utilization time" of the individual had shrunk to below 1400 hours per year in 1990 at companies like Volkswagen. This comes close to half of the figure for their Japanese colleagues.

The employer's response to the prospect of the shortening of the working week was the demand for a lengthening of plant utilization hours per week via shift work.¹⁰ This could be achieved by disconnecting the individual working hours from plant utilization hours. The first model for such a disconnection was introduced at BMW's new Regensburg plant in

¹⁰ Yearly working hours for two shift workers on the basis of collective agreements in the metal industry (1989)

Country	working hours per week	public holidays	vacation	working hours per year
F.R.G.	37	11	30	1.528
U.K.	37,3	8	27	1.686
Belgium	38,36	10	25	1.734
Spain	40	13	25	1.784

Source: Bosch 1989: 69.

1986. A nine-hour shift was introduced with four individual working days and thus a working week of 36 hours (35,30 hours).¹¹ At the same time, the plant utilization time is 99 hours per week and includes one shift on Saturdays. This utilization time is achieved by a rather complicated three shift rotation system.

The strategy of increasing plant utilization times thus became one of the most important topics in industrial relations in Europe at the end of the 1980s. The actual driving force behind this were the capacity bottlenecks which appeared at some companies, although the European automobile industry as a whole tended rather toward excess capacity.¹² These bottlenecks appeared primarily at General Motors Europe, the fastest growing European automobile producer in 1990. This was behind GM Europe's interest in increasing output in existing facilities. Their pushing through of this interest is often quoted as an example of "whipsawing" within an international corporate group (cf. Steinkühler 1989). Thus the unions in GM's plant in Saragossa Spain were the first to agree to a third shift; in view of the improved performance of this plant, the Belgian unions in Antwerp saw themselves under pressure as well to agree to a third shift. Against this background, the works councils of the German branches saw themselves forced to give in, despite strong pressure from the IG Metall headquarters.¹³ The record for plant utilization times achieved in this manner belongs to Opel's Kaiserslautern engine plant, where an agreement was reached in spring 1988 that in the planning of future investments management could assume a utilization time of 139.5 hours. This agreement includes round-the-clock production from Monday to Friday without stopping the line for breaks, two possible six-hour overtime shifts and a sixth night shift on Sunday night.

The fact that the Kaiserslautern works council was so willing to make concessions can be explained by the fact that it did not do well in comparison with its parallel plant Aspern, near Vienna. The Aspern plant is

¹¹ In 1986 the contractual working week was 37.5 hours; the difference of 1.5 hours at Regensburg was fully paid by the company. With the further reduction of the weekly working hours to 37 hours, this 1.5 hours advantage was kept.

¹² For the middle of the 1990s, the consulting company Ludvigsen Ass. Ltd. is reckoning with a market caused surplus capacity of 10-14% in Europe. (cf. Frankfurter Allgemeine Zeitung, Aug. 21, 1990)

¹³ After that, the central works council representing the works councils of the German plant wrote a letter to the worker representations at the other European GM sites: "We now fear that the measures GM has planned will lead to a competition over lengthened plant utilization times. The winner of this competition will be GM, the losers will be the workers in the affected plants and worldwide." (express, no. 5/1988: 7).

General Motors' first team plant in Europe, where lessons learned from NUMMI could be realized at a new site and a high flexibility in labour deployment could be achieved on the basis of the team principle (Scheinecker 1988).

Table 4: The disconnection of individual working hours and plant utilization hours in European car plants in 1990

<i>Working hours by collective agreement</i>		<i>Regular (resp. potential¹) utilization hours</i>	
GM Antwerpen	1570	GM Zaragoza	5336
VW Brussels	1625	Opel Bochum ²	5220
Opel Bochum	1628	VW Brussels ³	5198
– Night shifts	1576	GM Antwerpen	5160
VW Wolfsburg	1628	VW Wolfsburg	3712
Opel Rüsselsheim	1628	Ford Dagenham	3650
Ford Cologne	1628	Ford Halewood	3650
Ford Saarlois	1628	SEAT Zona Franca	3632
Vauxhall Luton	1695	Vauxhall E. Port	3588
Ford Genk	1710	Ford Genk	3541
Ford Valencia	1720	Ford Cologne	3450
GM Zaragoza	1725	Vauxhall Luton	3442
Vauxhall E. Port	1763	Ford Valencia	3441
SEAT Zona Franca	1768	Ford Saarlois	3345
Ford Dagenham	1786	Opel Rüsselsheim	3333
Ford Halewood	1786		

¹ The figures do not take into account the lower intensity of equipment utilization during night shifts at Bochum, Brussels and Zaragoza.

² The figures for Bochum and Brussels are extrapolated to cover the whole year 1990.

Source: Lehdorff (1990: 31).

Table 4 shows that by 1990 the plant utilization rate in terms of operating hours for the equipment in some European plants has reached spectacular heights. The GM plant in Saragossa thus has an operating time of over 5300 hours a year, an operating time which even the Korean plants can

hardly match. In comparison, the Opel (GM) plant in Rüsselsheim runs around 3300 hours. This plant produces an upscale product, which does not compete with Saragossa, otherwise the plant could not have withstood the pressure to come into line.

We now come to the second direction of thrust of the "new internationalization" – the achievement of Japan-oriented production and work methods. As the first Western company to do so, Ford had begun early in its American and European organizations to modify its own traditional forms of plant management and pursue an "after Japan" strategy. Focal points of its measures were integrating direct and indirect task areas, above all returning quality responsibility to production, decentralizing production responsibility and a number of measures and forms for including the work force in solving factory problems, activating potentials for improvement found in the experience of each member of the work force, supporting the identification of the workers with their factory, and improving communications beyond the previous horizontal and vertical interfaces.

Ford also played a leading role among car assemblers in restructuring its supplier relationship and reducing its degree of vertical integration. Ford had not made the attempt to introduce teamwork in its plants during the 1980s. General Motors has taken the lead here in propagating teamwork after the model of NUMMI as a central productivity concept. Estimates on the order of up to 30 per cent productivity increases by introducing teamwork are currently making the round among German automobile managers. Teamwork also plays a central role in MIT's paradigm of the lean production system (Womack et al. 1990).

During the 1980s General Motors accumulated experience with the whole range of experiments with new forms of work. But the NUMMI concept had largely asserted itself by the end of the decade. GM also pursued a strategy in Europe of introducing new concepts in peripheral plants, first of all in the engine plant in Aspern (production starts 1982) and at the beginning of the 1990s at a new site in Eisenach, in the former GDR. "The intention from the start was to create a transplant in Germany" stated Opel's chairman. "We would've wanted that in any green field side in Europe, but Eisenach is particularly advantageous. The East-German workers are enormously ready to try new methods. They don't know how it's done in West Germany. They only know that what they've done in the past (building Wartburgs) was the wrong way to do it. So they're very open to learning." (Opel chairman Hughes in: Ward's Automotive International 1991: 11f.). At its "transplant" of NUMMI in Eisenach, Opel tries to proceed the way the Japanese did in the U.S.: plant management will be recruited from the transplant plants NUMMI and CAMI who have

experience with Japanese management methods. Personnel selection for the new plant was just as scrupulous as that of the Japanese in North America, and key workers for the plant will be trained at NUMMI and CAMI.

Volkswagen also regards its production system as too "fat" at the beginning of the 1990s and is starting various initiatives to introduce a "lean production system" according to the Japanese model. Different approaches are being followed:

- In a joint venture with Toyota, it is producing vans in its Hanover plant; this joint venture is limited to a small area of the plant, which is under German management and work methods. Nevertheless, Volkswagen admits to have learned a lot from the way the model start-up was organized by the Toyota staff in the plant.
- The change toward a just-in-time process with team production and *kaizen* activities has begun in its engine plant Salzgitter, i.e. in one of the core plants of the old Volkswagen system.
- New work practices explicitly oriented toward the Japanese model are being planned for the new locations which are currently being built at Martorell and at its new East-German plant in Mosel. Volkswagen hired a former manager of Nissan's U.K. plant in Sunderland, C. Griffith, as manager of the Martorell plant in Spain. Teamwork and flexibility between direct and indirect tasks within teams, quality responsibility by teams, Kaizen activities, visual management, just-in-time processes and a low degree of vertical integration shall be introduced at Martorell.¹⁴ Almost the same measures are planned for the Mosel plant (Jürgens et al. 1991) which is already called by its employees "*NUMMI in Sachsen*". Nevertheless there seem to be differences: At Mosel a policy of recruiting only qualified skilled workers for production jobs is in line with the paradigm of the skilled worker-based high-tech production of the parent organization. In contrast, at Martorell the broad further training effort for unskilled workers has started, and on-the-job training schemes are being planned which is more in line with the paradigm of Japanese plants.
- The next plants in the framework of VW's internationalization strategy are in Czechoslovakia; we can assume that a further step toward Japan-oriented production management is planned here.

¹⁴ At Martorell it was even suggested recently to introduce an individualized payment system on the basis of personnel assessment by the supervisors (cf. European Industrial Relations Review, July 1991: 9). Such a payment system has also been installed at Nissan Sunderland in Britain. As we have seen above it has not been introduced in the American "transplants".

- Last but not least we have the joint venture VW/Ford in Portugal for the production of a minivan.

The bulk of the Japan-oriented strategy for work reform is still in the planning stage. But it shows the clear endeavour of the companies to get away from forms of traditional practices and regulations.

The new Volkswagen plants no longer belong to the organization of the actual VW core group. They are part of new, independent subsidiaries, Seat, VW-Sachsen and Skoda, which, together with Audi and the VW AG, now make up VW-EUROPE. Wage agreements and accords made by the works council with VW AG management are thus not valid at the new sites. Agreements on breaks, shift work, etc. have to be negotiated anew. This also includes, for example, the introduction of a regular third shift and Saturday work, as we have already discussed above.

It is obvious that in the course of this development, the possibilities for locally or nationally limited interest representations to exert influence on decisions have decreased, and the possibilities for central management to play off sites against each other and thus to break the resistance to measures it wants to introduce have increased. In regard to the new sites at the end of the 1980s, management sees here the opportunity to try out new concepts in the sense of a clean sheet approach, which no longer only attempt to achieve individual elements, but rather "integral" Japan-oriented concepts. The experiences with the "transplants" and the MIT authors' universalizing interpretation of these concepts as "lean production" have played an important initiating role. However, the transfer of Japan-oriented concepts to the new plants – with all of the differences that have to be made here – does not go so far as to make cuts in the central role of skilled workers (*Facharbeiter*) and vocational training in the German tradition. The causes for this can be found less in industrial relations than in the still prevailing interest of German management in technological solutions of problems, for which the skilled worker track appears necessary.

4. INTERNATIONALIZATION OF INDUSTRIAL RELATIONS?

CONCLUSIONS AND PERSPECTIVES

Our starting question was to what extent the Japanese or German companies are attempting to transfer their indigenous production strategies within the framework of their internationalization strategies. The study has shown that the Japanese companies in their triad sites attempt to transfer their own management and production strategies as far as

possible and tend to see deviations from the point of view of necessary compromises with the social and political surroundings. We cannot discern a purposeful modification of the concepts in the "transplant" with the aim of providing feedback in the core plants at home and thus acting as a catalyst for restructuring. This does not mean, of course, that the Japanese companies did not learn from their transplants. For instance, after Toyota had found out that it could stretch its *kanban* system even to include the NUMMI and Kentucky plants in the U.S., it gained the confidence of breaking off from its tightly knit network in Toyota City with its newest assembly plant which is now being built on the southern main island of Japan, Kyūshū.

The desired feedback from its foreign affiliate is a fundamental element of the new internationalization strategy of Volkswagen, which we studied as an example for the German companies. In this sense, Volkswagen does not pursue a "transplant" strategy, *but a modernization and restructuring strategy, which aims at the centre from the periphery*. At the same time, however, such new concepts are already being tried out at the centre with the cooperation of worker interest representations.

The company modernization strategy which is strongly oriented to Japan is, in principle, being supported by the company works council. Japanese production and management methods are, in principle, also not being rejected by the German unions.¹⁵ However, the determination of position and, previous to that, the reception of Japan are still in their beginning stages. Nevertheless, there is a great degree of uncertainty in regard to these methods and management's increased possibilities to realize them in the framework of international production structures. The idea of meeting the companies' internationalization strategy with an international strategy for interest representation arose above all from the above-described concession whipsawing in the question of plant utilization times. Against the background of changed corporate structures, it was also a reason for the formation of a European corporation works council for the VW corporation (EVW-KBR).

In the past, the unions and the plant or company works councils had little to counter the emergence of international production structures. There were periodic corporation conferences in which representatives of differing sites of the same corporation came together to exchange information and consider strategies in the framework of the International Met-

¹⁵ There has been no discussion in the German trade unions like the one which currently takes place in the British Trades Union Congress which has just condemned the "alien approach" of some Japanese investors (Financial Times, Sept. 7-8, 1991: 6).

al Workers Federation. These bodies could not pass binding resolutions; at the most they could increase the understanding of their respective situations. Here they were dealing primarily with questions of international solidarity in comparison to sites in the Third World. There were few interest conflicts and interdependencies which were important for the interest representations from the core country.

This situation is changing in view of the emergence of European corporate structures for Ford, General Motors and now also VW. The interdependencies were clear here, and they touched on the primary interests of the parent plants. Beyond this, the establishment of a common European market also poses the question of the establishment of European political and social institutions. The demand for co-determination in the decision-making bodies of transnational companies or corporations has also been discussed in the political bodies of the EC since the 1970s. Numerous drafts thus foundered primarily on the attitude of the British government as well the position of the employers' associations, who rejected the creation of Europe-wide forms of interest representation (cf. *Industriegewerkschaft Metall* 1990).¹⁶

The European Volkswagen corporate group works council was formed in 1990 and includes representatives from Seat, VW Brüssel, VW AG und Audi. In the future, it will also include members from the Czechoslovakian plants and, possibly, VW Sachsen. The EVW-KBR meets at least once a year – its elected executive body meets more frequently – in order to reach common positions on topics which effect several national sites: securing employment and sites, the international production structures, corporate structures, issues of working time, working conditions, rationalization through new technologies, new forms of work organization, compensation, health and safety and environmental protection, social benefits, political developments and decisions. The preamble of the

¹⁶ This corresponds to the fact that they are trying to recruit managers with transplant and Japan experience for the top positions. This has hardly been successful in regard to Japanese managers up to now.

Shimada labels this "foreign aid" of the Japanese companies for Western industry as an opportunity and responsibility for the Japanese companies: "This trend, in fact, has extremely positive implications for the future of Japanese businesses which are in the process of globalizing. For it suggests that Japanese firms and industries could be deeply involved in the future development of the world's industry. This, however, holds true in that Japan can actively participate and contribute to the building of a new corporate model as international public assets, so to speak, which can be shared by people of the world, instead of forcing them to use Japanese experience and engineering." (Shimada 1991: 6).

rules of order for the European Volkswagen corporate group works council reads as follows:

Our common union activity is required so that the work forces of the VOLKSWAGEN corporate group are not played out against each other. We want to cooperate more intensely in international solidarity so that secure jobs and sites, humane working conditions, food wages and social benefits can be achieved or secured in the future for all work forces in the VOLKSWAGEN corporate group. For this reason we are for a solidarity in the equalization of employment and development possibilities for all sites of the VOLKSWAGEN corporate group in order to achieve this goal.

The establishment of European corporate group works councils is also being prepared at Ford (Aigner and Kuckelkorn 1991: 140). Beyond this, Aigner and Kuckelkorn, prominent works council representatives of Ford in Germany, see it as necessary for the future to also establish such institutionalized forms of comprehensive cooperation with suppliers.¹⁷

It goes along with the social partnership tradition of the VW corporate group that the EVW-KBR is recognized by the company. There is no formal agreement, though, in view of the rejection of Euro-corporation works councils by the employers' associations. The costs for the EVW-KBR's travel, interpreters lodging and board, are paid by the companies. VW's board member of Labour Affairs (*Arbeitsdirektor*) states: "We need a social dialogue which does not end at the national borders" (Gesterkamp 1991). The general secretary of the corporate group works council fears, though, that if the other companies do not keep up with the internationalization of their worker interest representation, then this institution could lead to a competitive disadvantage for the VW corporate group. We have to conclude that the internationalization of interest representation still has a much longer path to go than internationalization of the management and production concepts.

¹⁷ "This integration would also require different forms of work organization and task allocation which, besides other places of deployment, would also deal with classifications and questions of subordination. The cooperation of management with a supplier must also include the cooperation with the corresponding worker representations at this point at the latest... A systematic and coordinated cooperation is necessary in order to prevent the worker representations of the supplier firms from being played off against the Ford-works councils." (Aigner and Kuckelkorn 1991: 140).

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INDUSTRIAL RELATIONS AND MANAGEMENT IN JAPANESE COMPANIES IN EUROPE

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ABSTRACT

Japanese-style management is characterized by such strategies as flexible organization of work, intensification of workload, close surveillance over the individual employee, introduction of 'performance' appraisal, and formation of collaborative industrial relations. In this paper, we examine how German workers working for Japanese transplants respond to such 'alien' employment practices and to what extent Japanese managers are obliged to adapt their strategies to German socio-cultural conditions. After a brief comparison with the British situation – the voluntarist nature of the industrial relations system in Britain seems to be fully exploited to 'Japanize' its manufacturing industries – we offer some critical comments on what Japanese management really intends to bring about in workers' daily lives on the shopfloor. Does it mean progress or regress on the road to 'humanization of work' and 'participation of shopfloor workers in decision-making'?

CONTENTS

1. Introduction
2. Japanese management in German situations
 - 2.1. Qualitative flexibility of work task
 - 2.2. Intensification of workload
 - 2.3. Close surveillance over the individual employee
 - 2.4. Differentiated payment by *merit* appraisal
 - 2.5. Collaborative industrial relations
3. Japanese management in Britain – A brief comparison
4. Progress or regress? – Some conclusions and comments
- Bibliography

1. INTRODUCTION

'Japanese management' stands out for the characteristic features of its employment practices, work organization, remuneration, and industrial relations. When launching their operations overseas, Japanese managers, being convinced of the general superiority of their own practices back in the homeland, usually try to apply the same practices also

to the local labour force in the new plants. With all their efforts, however, in the actual process of implementation, they are often forced to adapt to various degrees in the face of foreign socio-economic or socio-cultural environments. In fact, there are very few cases, at least so far, where the "three precious treasures" of Japanese management, i.e., lifelong employment, seniority-based remuneration, and enterprise-wide unionism, have been successfully put into practice in their full forms. Nonetheless, Japanese companies are persistent in introducing various elements of the system, if not the entirety, in order to achieve enhanced worker motivation, flexible work organization, stable industrial relations, and so forth. Some of the measures may be accepted by the local employees, but others may not. When and where worker resistance is strong enough, further adaptation is inevitable for the management. What concerns us in this paper is such an *application-adaptation* process seen in Japanese companies operating abroad, mainly in Germany.

In the first section, we review a series of constraints which the German environment puts on the application of Japanese-style management. The account will be no more than a rough sketch, for detailed case studies of Japanese transplants in Germany, especially those focused on shopfloor matters, have yet to reach the level of research results available for the U.K. or the U.S. Thus, in the next section, what appear to be specifically German features of the adaptation process are briefly compared with features observable mainly in the U.K., with occasional reference also to cases in the U.S. An attempt is made to identify common features and differences between Germany and the U.K. as far as the above-mentioned application-adaptation process is concerned. The final section will be devoted to an analysis of the nature and the meanings of Western workers' response to Japanese management in the light of such concepts as 'humanization of work', 'quality of working life', 'participation of shopfloor workers in decision making' and so on, as they have long been propagated in the Western industrialized countries. Of particular importance here is to penetrate into what Japanese management really intends to bring about in spite of the beautiful slogans with which Japanese firms often launch their operations abroad.

Although a great deal can be said about the distinctive conditions of white-collar employees under a Japanese management regime (for example, a still more intense competitive atmosphere in offices than in factories), our focus in this paper is on manual workers at the point of production, which, after all, has attracted much of the attention of many commentators.

2. JAPANESE MANAGEMENT IN GERMAN SITUATIONS

With our space limited, we will not reiterate here the fairly well-established description of what constitutes Japanese management. In spite of a wide variety of interpretations, no one would hesitate in locating the very essence of Japanese management in the flexible adaptability required of the work force to facilitate management's goals, both immediate and over longer terms. Here we will discuss in turn five strategic policies which arise from that principal concept of flexibility, and see how each of them works in a German setting.

2.1. Qualitative Flexibility of Work Task

At the very beginning, Japanese firms invariably conduct a careful selection procedure to skim off their future employees from among numerous applicants; the foremost emphasis is put on general ability and willingness to perform unspecified tasks, not on specific skills or formal qualifications acquired by would-be employees. Closely related to this recruiting practice is the fact that job definitions are extremely generalized in Japanese firms. It is not unusual for all the semi-skilled workers employed to be categorized under a single broad job title. Thus, a worker, once selected as regular employee, is expected to undergo incessant changes in the content of his/her assigned task in response to management needs. Japanese managers tend to take it as a matter of course that work assignment or worker deployment should be a prerogative of management. From the workers' point of view, they are not allowed to circumscribe their relation to the company by means of clearly defined jobs they perform. In a word, a typical shopfloor under Japanese management finds itself at the exact opposite to one where restrictive practices such as 'demarcation' prevail.

In Germany, however, there are several obstacles which prevent Japanese managers from achieving this kind of flexibility to the full extent. First of all, in most industries there are industry-wide labour agreements which provide a graded classification of distinctive job clusters industry by industry, prescribing wage rates for each defined job cluster as well. Generally speaking, employers, including Japanese ones, are under obligation to comply with the provision. Besides, skilled workers known as *Facharbeiter* in Germany are those who have acquired official recognition as such after completing a certain formal apprenticeship (Nomura and Altmann 1987: 20–23). Their status is, so to say, a societal one, being independent of the particular employer for whom they happen to work.

Furthermore, German workers, skilled or not, tend to take it for granted that their labour contract will be negotiated with an employer before they enter into employment, so that they may feel assured about what kind of job they are supposed to do under the contract.

These established practices often hinder Japanese transplants from pursuing flexible utilization of the work force. A Japanese zipper manufacturer, for example, experienced considerable trouble when he tried to transfer a group of female employees to machine-minding jobs, simply because the labour contract for the women described their task as 'final assembly by hand'. The employees concerned were naturally reluctant to be transferred to more demanding machine jobs, which were, after all, not required of them in their contract. In an effort to eliminate this sort of rigidity in worker redeployment, some Japanese firms are aiming at a more flexible labour contract that includes such phrases as 'to be transferable to a similar type of job' (Kumazawa 1989: 89).

Indeed, German workers are likely to accept transfer between jobs insofar as the newly allotted work falls within the same job classification as the present one. However, the *Betriebsverfassungsgesetz* provides the works council with the power of 'co-determination' also in the field of personnel management. Under the law, therefore, the management side is not so free in determining the conditions of transfer and who will be transferred as Japanese managers often desire to be.

On the other hand, there is a factor which might work favourably for Japanese transplants. It is a common practice for a Japanese firm to develop a system of 'on-the-job training' coupled with regular job rotation so that every employee becomes 'multi-skilled', at least to the extent that every member of a work team can do all the jobs assigned to the team as a whole. In the last analysis, a certain degree of such 'multi-skill' on the part of the work force is an inevitable technical precondition of the desired flexibility in worker deployment. And this aspect of management policy may have some appeal to those German trade unions which, for the past decades, have been making out their own case for 'humanization-of-work' measures such as job enlargement or enrichment in order to redress over-simplified, repetitive work patterns. It requires critical thinking, as will be elaborated later, to know whether or not the 'multi-skill' pursued by Japanese management means a step forward in the humanization of work that is desired by German trade unionists. For the moment, however, there seems to be some possibility of a Japanese transplant inducing the work force to willingly accept its skill formation arrangements.

2.2. Intensification of Workload

A flexible work organization of the sort described above does not necessarily allow workers, whether as individuals or as a work team, to retain some (if limited) control over their day-to-day workload. The case is often to the contrary: 'standard work' is always clarified for each piece of operation as an absolute norm to be achieved by every employee. In many cases the 'standard' is set through Industrial Engineering (IE) methods originating in, and improving upon, the Taylor-Ford tradition. Furthermore, the workload tends to increase as a result of constant elimination of waste, human or material, under Japanese management. Typically, many *kaizen* (reorganization) campaigns go like this: the members of a work team themselves learn to apply a set of IE methods to the production process for which the team is responsible; when they find out exactly at which stage or at whose station on the production line 'idle time' continuously arises, work is re-assigned among the team members to eliminate the slack operation; repeated success in such attempts, ironically enough, invariably leads to reduction in the size of the work team itself – that is, one of the workers will be made redundant. Where the 'just-in-time' production system is pursued, labour intensity tends to be still more heightened. For example, the waiting time prescribed for a one-minute job is only three seconds at a Japanese-owned automobile assembly plant in the U.S., while the average corresponding time allowance at an ordinary Big Three plant is usually fifteen seconds or so (Fucini and Fucini 1990: 148). In fact, the workplaces where time studies are carried out using a stopwatch openly without any reservation are often Japanese, rather than those of the Big Three car manufacturers which are supposed to be the birthplace of the Ford-type assembly-line production management.

It seems highly probable that German workers in general will dislike this kind of intensifying control over their own workload. It should be remembered here, for instance, that about 20 years ago in Nordbaden, the *Industriegewerkschaft Metall* (IG Metall) union even organized a strike action demanding an upper limit to the speed of moving assembly lines as well as an adequate amount of rest during a working day (Kurata 1985: 39–41). At a video manufacturing plant I myself visited recently, one of the agenda items for its works council was nothing but a critical objection to the management prerogative of setting productivity targets unilaterally. The discussion was said to have arisen from the workers' protest against the usage of stopwatches for time studies (Kumazawa 1989: 116).

The German statutory regulation of working hours, overtime work, and holidays poses another major obstacle to Japanese-style efficient utilization of the work force. First, weekly scheduled working hours in Ger-

many are for the most part 37 (to be reduced to 35 by 1995 in the metal and engineering industries), whereas in Japan 44 hours or more is still normal. Second, although overtime work is permitted for up to 10 hours per week in Germany, it must be strictly an emergency measure and should be approved as such by the works council. Also, in Japan, the Labour Standard Law stipulates some procedures to be observed by the employer, but at the same time the provision can be and is used to render overtime work a regular practice. Actually, overtime of two hours or so per day can be arranged any time at the discretion of the employer. Third, German employees are entitled to annual paid holidays of 30 days or so, and, as a rule, they enjoy all of their earned leave, while Japanese employees are often persuaded to give up almost half of the paid holidays to which they are entitled, 18 days on average. Considering these harsh contrasts between the two countries, it is only natural that expatriate Japanese executives in Germany should be quite displeased with statutory working hour regulations which seem to them too generous for the employees. German manufacturing employers themselves, who feel threatened by their Japanese rivals' superior competitiveness, sometimes refer to the same contrasts as a major reason for their refusal to yield to workers' demands for even shorter working hours. After all, the annual average number of working hours here is now shorter by 500 hours than in Japan. All the same, however, Japanese managers of the transplants in Germany cannot but be patient, for the present at least, with the indigenous conditions, as dissatisfied they are with them.

2.3. Close Surveillance over the Individual Employee

In principle, all grades of regular employees hired by a Japanese company are treated as equals, under what is often called 'single-status' personnel management. The other side of what appears to be an egalitarian policy is, however, a strong, incessant pressure exerted upon each individual to conform to the company's notion of a good employee. The company's work rules, therefore, almost always state explicitly, and often meticulously, what is and is not expected of an employee, not only in the technical matters related to his/her immediate job but also in ethical or motivational matters, with disciplinary measures specified as well in case he/she deviates from the norm. One of the most important functions played by middle and lower management is, thus, keeping a close watch over, and guiding if necessary, the day-to-day behaviour or attitude of the individual subordinate, extended sometimes even to his/her pattern of private life. And, needless to say, it is this aspect of the Japanese management that most probably confronts the traditional, individualistic value system

of Western workers in general. German employees of a Japanese transplant will also resist, overtly or covertly, its excessive interference with their private lives. Some Japanese firms in Germany, for example, have failed to make it mandatory for every employee to wear the company uniform, and German employees sometimes even object to their 'working jacket' being called a 'uniform'.

Nevertheless, Japanese employers will be persistent in pressurizing local employees to conform to the company's needs. Above all, regular and stable attendance at work is invariably stressed. And attempts are often made to restrict the employees' freedom to take their paid leave whenever they like, even if the full use of entitled holidays itself is permitted reluctantly. Thus, the employees are required to concentrate a large part of their annual paid holidays during summer or Christmas vacations, when the plant itself is closed anyway. The higher absence rate of German workers compared with that of Japanese ones is another major source of complaint for the transplants' managers. The German statutory provision for sick leave, on top of the longer annual paid holidays, seems to them too generous. Suspecting that some of the many cases of sick leave are nothing but disguised simple absenteeism, Japanese managers sometimes go so far as to assign a foreman to call at the absentee's house to check up (Kumazawa 1989: 102f.). The fact that attendance control is much stricter at a Japanese transplant than elsewhere is an inevitable result of tight manning levels on the shop floor, where there are scarcely any workers reserved to substitute for a team member who happens to be absent for whatever reason.

2.4. Differentiated Payment by Merit Appraisal

Concerning wage payment, the most common practice of Japanese firms making inroads into Europe or North America is to rearrange and reduce the number of wage grades given by the industry-wide labour agreement into as few categories as possible on an enterprise-wide basis, and then to re-introduce a different kind of wage differential based on a close appraisal of individual employees' *merit* – more exactly, their general ability, realized or potential. Needless to say, this wage policy is closely linked with the Japanese-style flexible work organization. It should be remembered that in the Western industrialized countries similar merit rating has been applied, on the whole, only to senior white-collar staff, who are often unorganized. Therefore, the introduction of wage differential by *merit* into every grade of the work force, including production workers, is a real breakthrough. So it is only natural that those organized manual workers who believe in the principle of 'equal pay for equal work' should fear that such a payment system will eventually erode the traditional sense of fair-

ness and solidarity among them. In the U.K., particularly, a variety of conflicts have occurred in the wake of the application of the new appraisal procedure to production workers.

In Germany, however, some collective agreements allow a certain portion of the earned payment to be a merit-appraisal-based supplement (within a limited percentage of the basic wage rate), making clear at the same time both the factors to be assessed in the appraisal and the permitted range of pay-differential resulting from the merit rating. Therefore, Japanese employers are at a greater advantage here than elsewhere in introducing a merit rating remuneration system in their transplants, if under the conditions given in the labour agreement. Yet, in reality, they are not as free as they hope to be in doing so. For example, in the zipper manufacturing firm mentioned earlier, there has been a prolonged debate between the management and the union, or in the works council, over such issues as whether the merit rating should be reflected only in an individual's 'bonus' earning, or should also be applied to the supplementary part of his/her regular wages; whether his/her attendance record should be included in the appraisal factors or not; and so forth. The Japanese factory manager there pointed to the workers' collective intervention even in the practice of the personnel appraisal, which he thought should be the management's prerogative, as one of the reasons why local workers' morale was not as high as desired.

2.5. Collaborative Industrial Relations

Successful application of all four strategic policies listed above depends more or less on stable, collaborative industrial relations in the transplants. In this sense, the type of Japanese enterprise-wide unionism, which tends to identify its fortunes with the company's economic prosperity, is quite harmonious with every aspect of Japanese-style management. In this regard, the German industrial relations system poses a considerable inconvenience for the Japanese direct investments in Germany. Recognition of the established union organization on an industry-wide basis is a statutory obligation for almost all employers in the industry, including Japanese ones. In fact, some Japanese firms which attempted to exclude any union influence have been ordered by the Labour Court to recognize established unions' legal right of bargaining. The basic working conditions agreed on in collective bargaining are also legally binding across the industry, irrespective of the union membership rate of a particular firm. In other words, it is virtually impossible for a Japanese employer to opt for establishing a non-union plant or to select a single cooperative union from among a number of relevant unions as the sole representative agent

of the employees, as is often done in the U.K. and the U.S., where the industrial relations system is based on the voluntarist principle. Thus, in Germany, many Japanese manufacturers have to have bargaining relations, say, with the IG Metall union, whose stance Japanese managers think is sometimes too demanding.

However, even if such basic labour conditions as wage rates and working hours are forced on an individual firm from the outside, Japanese managers still try to retain their own competitive edge, which lies, in the last analysis, in their firm grip on the in-house organization of production. To be more concrete, Japanese firms' superior productivity derives largely from the management's tight control over such matters as work assignment, worker re-deployment, output quota, manning level, and so on. And here arises in Germany another serious problem for transplant management: the existence of the works council, which is granted by the *Betriebsverfassungsgesetz* the right of participation or codetermination in production and personnel management (Nihon Rōdō Kyōkai 1989: 60–65). As a matter of fact, the relative degree of workers' say in the shop floor issues mentioned above is possibly much greater under the German *codetermination* system than in the case of the majority of Japanese enterprise unions, which have long ceased to exert any independent influence over those issues.

All the same, there remains some possibility that the apparently higher productivity achieved in a Japanese-owned factory through its flexible production management will persuade the works council to consent to the management's more or less unilateral initiative in the day-to-day organization of production. After all, the works council has no right to resort to any industrial action if the discussion there has finally failed to reach a compromise. And, unlike in the U.K., any unofficial strikes attempted by shop floor workers are deemed illegal in Germany, and the official industrial union there is not in a position to direct a strike action at a particular workplace in order to threaten a specific employer.

All in all, therefore, the most probable strategy of Japanese firms in Germany in the industrial relations field can be summarized, for the present at least, as follows: to keep the industrial union as far as possible from intervening in the internal affairs of the transplant on the one hand, and on the other to talk the works council into a close collaboration with the management in making the transplant as flexible a work organization as has already been realized in Japan.

Indeed, there are other German specificities which tend to hinder the full-scale application of Japanese-style management. For example, the more elaborate protective legislation for occupational safety and health are entailing much higher overhead expenses for Japanese transplants than was ex-

pected. And utilization of part-time workers or subcontracting suppliers as a means of controlling the otherwise growing payroll, as is commonly practiced in Japan, is also rigidly restricted in Germany owing to the industrial union's policy of extending standard labour conditions to as many workers as possible. For the purpose of the present paper, however, the five strategic policies pointed out above can be said to form the critical points of conflicts between Japanese management and German workers in general.

3. JAPANESE MANAGEMENT IN BRITAIN – A BRIEF COMPARISON

At first sight the United Kingdom, long notorious as a 'strike-prone' country, appears to offer a more, if not less, problematic setting for the Japanese-style management than Germany. Then why, paradoxically enough, is the recent heavy concentration of Japanese direct investment in Britain rather than in Germany? This section attempts to give some answers to this question from the viewpoint of the industrial relations systems of the two countries.

Before we point out some specifically British features, let us remember here the common European socio-cultural background shared by the two countries: first, the proportions of organized workers in both countries are much greater than in Japan, reflecting Western workers' traditional belief in the union organization as a means of protecting their own interests as employed workers. In general, second, Western individualistic values do not encourage a sense of total belonging to the company among its employees. And third, the highly developed social security systems enable people to live without too much dependence on a particular employer. Needless to say, all of these European conditions make some sort of adaptation unavoidable when the Japanese management practices are applied there.

On top of that, specifically in the U.K., the deep-seated tradition of 'restrictive practices', especially 'demarcation' among other things, still prevails fairly widely at the point of production. With this practice of trade unions' (or the rank and file's cautious conservation of their own territories of job or craft, a series of management initiatives to restructure the production process and organization – change in job definition, transference of workers between different jobs, and technological innovation itself, for instance – would necessarily be hampered to a great extent. Occasionally there is even a case where a newly introduced computer-controlled machine tool has been left unused for six months because of a demarcation dispute between a machine operators' union and a computer

workers' union. As was mentioned to earlier, this sort of 'restrictive practice' on the shopfloor makes the most implacable enemies for Japanese-style flexible management of production. Such a climate in the workplace is also quite unsuitable for the introduction of a Quality Control (QC) movement, or a *kaizen* campaign, the well-known devices used by Japanese management to exploit workers' creativity in continuous reorganization of production for the purpose of ever increased productivity.

Closely related to this British state of affairs are the key role played by shop stewards and the conventional practice of shop floor bargaining led by stewards. These union representatives of the shop floor membership are usually on their guard and apt to intervene in any management attempts to bring about change in such matters as standard work, pace of operation, piece rate in the case of payment-by-result, break time, manning level, and so on. Even if these changes are small in themselves separately, their cumulative effect is critical for the economic performance of a factory as a whole. In general, however, British workers, particularly manual workers, have striven mightily to resist the management's unilateral control over their own jobs, especially when it was attempted in the name of 'scientific management'; and at least until the beginning of the 1980s, so-called 'mutual' decision-making in those shop floor issues had been the normal practice in many workplaces. In spite of recent changes in British labour-management relations, it may be said that British employers on the whole have not yet succeeded in regaining their complete prerogative in the important area of job-related matters.

Also to be noted here is the fact that British organized workers are more persistent than their German counterparts in upholding the principle of 'equal pay for equal work'. Any wage differentials resulting from individual employees' merit-rating by their superior, when they are doing the same category of job, would most probably evoke fierce resentment among them. In fact, there had never been serious managerial attempts to apply any sort of employee-appraisal system to the manual work force in Britain, at least until the recent rapid increase in Japanese direct investment (Ishida 1990: 121–123).

As the collective bargaining system is largely decentralized, fragmented, or autonomous in the U.K., so is the nature of industrial action in many cases. In other words, when the shop floor bargaining mentioned above fails to result in a compromise, it is often the case that a group of workers directly concerned with the dispute will promptly go on strike without any official recognition from the union. The union, for its part, if it does not actively support, rarely suppresses this kind of spontaneous action. Since demarcation practices inhibit any workers from assuming the jobs of those workers who have walked out, even a sectional strike action within a plant

tends to cause serious damage to the whole production process, and thus can be extremely effective from the workers' point of view.

Although there have been many changes during the last decade, it can still be said, as a summary of what we have seen so far, that the traditional image of British organized labour is the farthest from the 'company-person' ideal of Japanese-style management. Of all other industrialized countries, thus, the U.K. should have been the least desirable for Japanese direct investment if other conditions had been equal.

In actuality, however, it is the U.K. rather than Germany that many Japanese manufacturers have preferred for the location of their new subsidiaries since around 1980. Although the difference in 1987 between the numbers of Japanese firms in Britain and in Germany was slight, 403 and 368 respectively, out of the 368 Japanese firms only 39 had opened manufacturing plants in Germany in the same year (Nihon Rōdō Kyōkai 1989: 245). The trend has continued. Apart from the U.S., the main target country for Japanese major manufacturers' expansion is not Germany but the U.K.

One of the most obvious reasons for the choice is the relative low wage level in the U.K. today. To take, for example, one of the industries attracting most foreign investment, the automobile and auto parts-supply industry, the average all-inclusive hourly earnings in the U.K. was U.S. \$ 10.54 in 1987; the corresponding figures were \$ 21.38 in Germany, \$ 20.53 in the U.S., and \$ 14.33 in Japan (Motor Vehicle Facts and Figures 1988; cited in Grønning 1990: 160). In short, as far as the car industry is concerned, the level of labour costs in Britain was just 49% of that in Germany and 74% of that in Japan. It meant, others being equal, that a Japanese car manufacturer could expect to be twice as profitable in the U.K. as in Germany.

There is probably a more stagnant economic situation in Britain than elsewhere, as is also seen in the level of unemployment. According to OECD *Labour Force Statistics*, the average unemployment rates in the U.K., the U.S. and Germany during the years from 1983 to 1989 were 10.2, 6.8 and 7.7% respectively (Rōdōshō 1991: 215). Driven by this hard fact, many local governments in the most depressed districts with heavy unemployment, not to speak of the British government itself, have eagerly invited prospective Japanese manufacturers to invest by offering generous conditions. From the standpoint of Japanese employers, the high unemployment rate in the U.K. is in itself an inviting factor, for it means they can select from among numerous job-seekers only those who have proved themselves to be most adaptable to Japanese management.

From our viewpoint in this paper, much more important is the fact that prolonged economic hardship has also forced the British labour movement to make a series of substantial concessions, so that the power of organized labour is no longer so strong as it was in the 1970s. We will not

review the process in detail here, but it should be said that all of those characteristic features of the British unionism which we have depicted as the very ones most in conflict with Japanese-style management have been largely eroded. An enormous consolidated pressure – both from heavy unemployment on the one hand, and from the concerted, persistent efforts by government and employers to rebuild the productive competitiveness of British industry on the other hand – has gradually and steadily deprived shop floor workers of those traditional ‘customs and practices’ which have long helped them maintain their own way of day-to-day life in the workplace. There has appeared a ‘realistic’ leadership in the union movement which is prepared to collaborate with management in pursuing higher productivity, if only to protect its membership from unemployment and to ensure its own survival.

Of great significance in this changed labour relations climate is ‘voluntarism’, or the characteristic ‘abstention of the law’ of the British system. Unlike in Germany, where an employer has no choice in union recognition, and also unlike in Japan where an employer is legally obliged to negotiate with any unions representing the workforce irrespective of their size and their policy stance, in the U.K. there are virtually no statutory duties or liabilities for an employer concerning a wide range of industrial relations issues including union recognition. An employer can simply refuse to recognize a particular union, or can pick a desirable union as the sole negotiator. To put it another way, whether a particular union is recognized or not depends largely on its own strength in the workplace. It is not surprising, therefore, that Japanese employers in Britain have made the best use of this voluntarist tradition there to create a special type of in-house management-labour relations.

In fact, many of the Japanese firms declared well in advance of opening factories that they would recognize just a single union which would be best prepared to cooperate with management. Explicitly demanded of the union was the acceptance of ‘no demarcation’, flexible worker deployment, team-work, technological innovation and so on. Such major unions as the Electrical, Electronic, Telecommunication and Plumbing Union (EETPU) and the Amalgamated Engineering Union (AEU) finally accepted the demand willy-nilly. Some of the Japanese firms decided to locate their new plants in heavily depressed districts where people desperately expected employment opportunities to be created thereby, only after having made sure that a labour agreement could be concluded along the above lines. It is not unusual, furthermore, that what is called ‘no strike’ clause is included in the agreement (Kumazawa 1989: 119–122).

Thus, in the U.K., once well known as the country of strong, independent trade unionism, quite a number of Japanese transplants are now

operating, mainly in mass-production fields such as automobile, machine tool, and electrical-electronic appliance manufacturing. And it seems that even a wholesale application of the Japanese-style management has, at least so far, gone largely unchallenged, with the possible exception of the introduction of the 'merit'-rating system to the manual workforce. A similar development can be seen also in the U.S. Thus it is in Germany rather than in the other two countries that Japanese managers are being compelled to adapt their strategies to the local setting to a considerable degree. Although the German union movement might be more moderate than its British counterpart used to be, a wide range of industrial relations matters as well as standard labour conditions are statutorily regulated and, so to say, fairly well rooted in the German socio-politico-cultural structure in general.

4. PROGRESS OR REGRESS? – SOME CONCLUSIONS AND COMMENTS

What concerns us here in the concluding section is the nature of the *adaptation* which the Japanese managers of transplants in Europe are being forced to make, if in different degrees in different countries, when they apply Japanese-style management to the local working people. And what should we think of the adaptation itself?

For those who celebrate the Japanese-style management for the sake of its proven superiority in productive competitiveness or in economic performance in general, any adaptation is nothing but a regrettable retreat. Indeed, many people on the *managing* side of industry all over the world (including socialist countries) seem to think this way. But if we take into account the cost to be paid by the *managed* side of industry, our view of Japanese management can never be one of unqualified celebration. The cost sometimes amounts even to *karōshi* (death from overwork) in the motherland of Japanese management. This is why it is important to pay special attention to how and how much the adaptation is responding to the attitudes or behavior of European workers.

I am not saying that Japanese management is like a despotic regime. Its superior economic performance is simply undeniable, and some part of the success, also undeniably, derives from its own egalitarianism and employee-participation principles. And this egalitarian, participation-inducing aspect of the Japanese management may have a certain appeal to those Western workers who have long been dissatisfied with the management-labour class division. Therefore, in the remaining part of this paper we try to discern the truth of what is really happening in the Japanese

transplants in Europe, especially keeping in mind the European tradition of industrial democracy and recent efforts to 'humanize' work. We discuss five points at issue one by one.

First, does the Japanese-style on-the-job training programme for 'multi-skill' represent a step forward in the expected 'humanization of work', in the sense of 'job enrichment' in particular? 'No' may be the more accurate answer to the question, according to many detailed case studies made in Japan. In fact, the so-called 'multi-skilled' versatility required of an employee is frequently no more than an adaptive capability to perform a number of simplified operations as swiftly as possible in a limited amount of time – for example, feeding one machine and then removing work from another machine, the machinery itself being equipped with a 'fool-proof' mechanism in many cases (Suzuki 1990: 200, 206). Far from an individual job's being 'enlarged' or 'enriched', the actual content of a 'multi-skilled' worker's job in a Japanese factory will generally remain 'semi-skilled' in the conventional sense. The image of a skilled worker who can decide autonomously the most appropriate plan, method and pace for his/her own work would be rather disharmonious with Japanese-style production management, in which an ever-higher output target is always given as an absolute norm. So, it can be said, the more genuine the European workers' demand for the 'humanization of work', the greater the adaptation that would be required of Japanese management.

Closely linked with this first point, it should be noted that each individual job is still designed precisely on the Taylor-Ford principle even when it appears to be redesigned by the work team members themselves. As a matter of fact, it is at a Japanese-owned car manufacturing plant in the U.S., not at a Big Three plant that what is called a 'Programmed Work Sheet' is handed out to every assembly worker. The 'Sheet' prescribes minutely the standard motion and time for every piece of the task to be performed by the worker, so that, for example, a typical job consisting of ten sequential operations should be done within one minute (Fucini and Fucini 1990: 78–79, 150). The 'team-work' system, another name of the Japanese-style production management, therefore, should be strictly distinguished from the ambitious goal of 'work humanization' based on the concept of an 'autonomous work group', as we saw in a Swedish car manufacturer's experiments, where the traditional moving assembly line was abolished as the sole, compelling time-setter (Wilkinson 1991:8). In this regard, a very suggestive remark was made by Peter Wickens (1987: 76, 92), Director of Nissan Motor Manufacturing U.K., who said: "Team working means having all employees committed to the aims and objectives of the Company, i.e., recognizing that each individual has a valued contribution to make but that we should aim for everyone working in the

same direction...(In other words,) team working and commitment have little to do with the actual method of organizing work."

In a Japanized production process, third, any 'waste', whether it is material or human, is eliminated to an extreme extent. After all, that is the main aim of the just-in-time (JIT) production system. Usually no substantial 'idle time' is allowed to any worker, and no sufficient number of relief workers are allocated for any work team (Jürgens 1989: 208f.). As a result, every attendant worker often has to work literally without rest from bell to bell, moving swiftly to and fro among machines, or up and down the assembly line, performing flexibly (or 'multi-skilledly', so to speak) several different but simplified operations, in order to meet the day's production quota. Indeed, it is often pointed out that a worker is permitted to stop the machine whenever he or she thinks it necessary to do so. But it is also true that the worker's decision to stop production is subsequently closely examined by a superior, whose decision about whether the stop was really inevitable or not has an effect on the merit-rating of the worker in question in one way or another.

Thus, fourth, it is necessary to examine the truth of the alleged employee participation in decision-making concerning the daily organization of work. How much voice is allowed to ordinary members of a work team or a 'QC circle', in what kinds of shopfloor matters?

It cannot be denied that Japanese managers eagerly encourage each production worker to make best use of his/her accumulated knowledge and creativity to improve on the present production process. Actually, however, the workers' knowledge and initiative are carefully harnessed to lead almost always to higher quality of work or improved labour productivity – in short, to further elimination of 'defect' and 'waste'. It is almost impossible and most unlikely for a worker to put forward a proposal at a shopfloor meeting concerning, say, alleviation of the intensified workload, more and longer tea breaks, or a higher manning level to make it easy for the work team to achieve the set production targets. Even if a worker dared to make such a suggestion, the shopfloor meeting has no power to make a decision on it, let alone to put the decision into practice.

The leading role in a shopfloor meeting is invariably taken by the first-line supervisor, who sees to it that every participant understands the company's goals as well as the shop's targets for the day, and that unanimous consent is given to the maximum effort to meet these targets. There is no voting at the meeting, and although questions and opinions are sometimes encouraged, the final decision always rests with the supervisor. After all, the essential function of these fairly frequent meetings lies in transforming the mandate of the management concerning production into a sort of voluntary mandate of the shopfloor workers themselves.

When this 'mandatory-voluntary' unanimity of the workplace is challenged by a few 'un-cooperative' workers, the Japanese managers will be determined to alienate them from their fellow workers by all means and persistently until these dissenters have no other choice but to repent of their past behavior or to quit the firm, as is often seen (and in some extreme cases brought into court) in Japan. In general, the first-line supervisors in Japanese factories have greater power and responsibility than their counterparts in conventional Western ones, especially in the sense that they are responsible not only for the daily organization of production itself but also for the personnel management of their immediate subordinates. For example, they keep an eye on the attendance record of each individual, grant or withhold permission to take paid leave, and make first-hand employee evaluations to be submitted to upper management; and of course they have final say in the assignment of jobs or overtime work among the workforce. It should be remembered, thus, that what appears to be autonomy of work groups under Japanese management is in reality under the strong influence and leadership of the lowest level of management (Jürgens 1989: 209f.).

The fifth and final point of our argument is concerned with industrial relations policies of Japanese firms in Europe.

As has been implied now and again in the discussion so far, the most disagreeable to the Japanese-style management would be an independent trade union movement which tends to intervene in those shopfloor matters from whose flexible administration Japanese manufacturers derive the greatest part of their productive competitiveness, such as job definition, workload, manning level, transfer of workers, and so on (Jürgens 1989: 214; Wilkinson 1991: 12f.). Also incompatible with the flexible management of production are trade union regulations covering wage payment that are based on the traditional principle of 'equal pay for equal work'. Such union rules predetermine a fairly rigid system of job definition, on the one hand, and by their very nature, on the other hand, contradict any wage differentials as a result of performance evaluations of individuals doing essentially the same class of jobs.

In Japan, enterprise unionism, as one of the 'three pillars' of Japanese management, has almost completely fallen in line with management prerogatives concerning both production organization and employee evaluation. Japanese firms expanding in Asian countries will be able to avoid any negotiation with independent union representation of their employees' interests, as is often the case there and sometimes in the U.S., where they also have some chance of establishing non-union plants. Japanese firms' success in Europe, where there is scarcely any option of simply avoiding union recognition, therefore, will depend on whether they can manage to eliminate more or less independent unionism from within the company or to domes-

ticate the local organization of the official union structure as an in-house partner in collaborative labour-management relations. In fact, the organization of frequent shopfloor meetings has always been emphasized as an efficient way of avoiding unionists' intervention in direct communication between the management and each individual employee.

Once, at a conference which was held to discuss the implications of JIT production, a participant from IG Metall said: "JIT only works properly when job enlargement, job enrichment, and other parts of the humanization-of-work programme have been achieved". This comment was supported by H. Widemann in his concluding remarks at the conference (Holl and Trevor 1987: 89, 98). From our point of view, however, it would have been more proper to say that JIT will never work when organization of work has been really humanized and democratized. Japanese managers like to stress the importance of 'human resources' in management of production, and often exaggerate the egalitarian, participation-oriented nature of the Japanese-style management when they launch their operations in Europe, if not in Asian developing countries. Indeed, every employee will be encouraged to participate in ever-increasing improvement of productivity. But rank and file workers will be powerless all the same in deciding for themselves how and how much to work without their own representation of interests through union organization, more or less independent of management. This is why we focus our attention on the adaptation process which is being, and will be, forced upon Japanese-style management by European workers and their organizations. We know only too well that the superior productivity of Japanese manufacturing industries is being maintained at the cost of workers' control over their immediate jobs and even their working lives in general.

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JAPANESE PERSONNEL MANAGEMENT TRANSFERRED

TRANSPLANTS OF THE ELECTRONIC INDUSTRY IN ASIA AND EUROPE

Nomura Masami

ABSTRACT

With overseas direct investment by Japanese companies rapidly increasing since 1985 when the dollar/yen exchange rate drastically changed, "globalization" or "internationalization" has become a very popular concept in the business and academic worlds in Japan. One of the hot issues in discussion of "internationalization" is the question of whether "Japanese management" is transferable to other countries.

The electric and electronics industry has been the most active in overseas production among Japanese manufacturing industries. Because TV set manufacturers have the longest experience with overseas production, I take TV transplants as an example.

In this article I compare the system and practice of labour management in transplants with that of their parent companies in Japan. In some aspects they are similar, and in others not. The degree of similarity is high in the fields of internal promotion, employment of peripheral workers, and utilization of overtime. It is not high, but not low either, in the field of in-house union organization, "qualification" systems, and personnel evaluation. The degree of similarity is low in such areas as a closed internal labour market, a complicated wage system, utilization of subcontracting, and flexible work organization. These four elements can be called "Japanese-specific".

CONTENTS

1. Introduction
2. Personnel management in transplants
 - 2.1. Outline of transplants
 - 2.2. Production volume
 - 2.3. Recruitment, labour turnover, employment adjustment
 - 2.4. Promotion system
 - 2.5. Wage system
 - 2.6. Industrial relations
 - 2.7. Assembly line of printed circuit boards
3. Concluding remarks
- Bibliography

1. INTRODUCTION

With overseas direct investment by Japanese companies rapidly increasing since 1985, when the dollar/yen exchange rate drastically changed, "globalization" or "internationalization" has become a very popular concept in the business and academic worlds in Japan. One of the hot issues in the discussion of "internationalization" is the question of whether "Japanese management" is transferable to other countries.

The most important assumption in this discussion is that "Japanese management" is unique as a whole. Researchers create an "ideal type" (*Idealtypus*) of "Japanese management" and examine how similar (different) is the management of a transplant is compared with this ideal type.

In order to examine the transfer problem exactly, however, two methods should be adopted. One method is to compare Japanese transplants with purely local companies, the other is to compare them with their parent factories in Japan. Though it is desirable that both methods be adopted, this is often made difficult by lack of funds and time. In this paper I will compare personnel management of transplants to that of their parent factories.

Two big electronics companies are taken as examples. I have given them the fictitious names of Metropolitan Electronic Company (MEC), and the other Homebred Electronic Company (HEC). Both companies produce many products and have many transplants. I limit the scope of my research to TV manufacturing transplants, covering all the transplants of MEC and HEC that produce TV sets in Asia and Europe. (Because of the project's schedule and cost, it was not possible for me to visit TV manufacturing transplants in North America. The electric and electronics industry has been the most active in overseas production among the Japanese manufacturing industries, and TV set factories have the longest history of overseas production in the industry.

The items examined are: (1) production volume, (2) seasonal fluctuation of production volume and adaptation of number of workers to the fluctuation, (3) labour turnover, (4) promotion system, (5) wage system, (6) labour representative system, and (7) production system of printed circuit boards. These items seem to cover all important aspects of personnel management.

The research was conducted in 1989/90 in collaboration with Prof. Tokunaga Shigeyoshi and Prof. Hiramoto Atsushi (both of Tōhoku University).

2. PERSONNEL MANAGEMENT IN TRANSPLANTS

2.1. Outline of Transplants

The transplants of MEC and HEC manufacturing TV sets in Asia and Europe are as follows:

1) MEC Taiwan Electric Company:

Established in 1962 (second oldest transplant of MEC). 56% of capital is held by MEC, which has exclusive management. Products include air conditioners, audio products, refrigerators, TV sets, washing machines, VCRs and others. TV sets account for 7% of total sales and are produced for the domestic market. The number of employees is 6,300 (of whom 50% are males).

2) MEC Malaysia Electric Company:

Established in 1965. 43.1% of capital is held by MEC, which has exclusive management rights. Products include TV sets, refrigerators, washing machines, electric fans, vacuum cleaners, irons and batteries. TV sets account for 20% of total sales and are produced for the domestic market. The number of employees is 1,600 (of whom 66% are males).

3) MEC Malaysia TV Company:

Established in 1988. 100% owned by MEC. TV sets are mass-produced for export exclusively. The number of employees is 600 (of whom 50% are males).

4) MEC U.K. TV Company:

Established in 1974. 100% of capital is held by MEC. Products are mainly TV sets and microwave ovens. TV sets are produced for the EC market. The number of employees is 1,200 (of whom 40% are males).

5) HEC Taiwan TV Company:

Established in 1969. 100% of capital is held by HEC. Products include TV sets, TV chassis, displays, and audio products. The factory is located in the free trade zone and its products are exclusively for export. The number of employees is 1,000.

6) HEC China Joint TV Company:

Established in 1981. The company is a joint venture between HEC Group (50%) and the local government of China (50%). HEC is responsible for product and production technology and product quality. Personnel management is controlled by the China side. TV sets are the only products. Until 1986 almost all TV sets produced were sold in China. In 1989 the export ratio was 42% (to Western and Eastern Europe, North America, U.S.S.R.). The number of employees is 1,300.

7) HEC Singapore TV Company:

Established in 1973. 92.5% of capital is held by HEC. Products include audio products, TV sets, and vacuum cleaners. TV sets account for 40% of total sales. TV sets are produced both for the domestic market and for export. The number of employees is 1,100 (of whom 31% are males).

8) HEC U.K. TV Company:

The company was established in 1978 as a joint venture between HEC (50%) and a U.K. electric company (50%). The U.K. company withdrew in 1984 when the failure of the joint venture became apparent, and HEC took 100% of the capital. Products are mainly TV sets and microwave ovens. TV sets are sold mainly in the domestic market. The number of employees is 800.

9) HEC Germany VCR Company:

Established in 1982. Wholly owned by HEC. Products are mainly VCRs and TV sets. For TV set production the company does final assembly only. Chassis are supplied by HEC U.K. TV Company. In 1991 it was announced that assembly of TV sets by the company would cease, production in Europe would be concentrated in HEC U.K. TV Company. The number of employees is 500 (of whom 33% are males).

2.2. Production Volume

Production volume of the parent companies and their transplants in 1989/90 is approximately as follows:

MEC

Japan IK TV Factory: 1,000,000 sets. Domestic market and export.

Taiwan Electric Company: 130,000 sets. Mainly domestic market.

Malaysia Electric Company: 120,000 sets. Domestic market.

Malaysia TV Company: 600,000 sets. Export.

U.K. TV Company: 500,000 sets. Domestic market and export.

HEC

Japan YM TV Company: 1,300,000 sets. Domestic market and export.

Taiwan TV Company: 80,000 sets and 230,000 chassis. Export.

China Joint TV Company: 400,000 sets. Domestic market and export.

Singapore TV Company: 350,000 sets. Domestic market and export.

U.K. TV Company: 260,000 sets. Mainly domestic market.

Germany VCR Company: 24,000 sets (final assembly only). Domestic market and export.

The production volume of the parent factories of MEC and HEC exceeds one million sets per year. Though the volume of the HEC parent factory is larger than that of the MEC parent factory, the total TV production volume of HEC is smaller than that of MEC. HEC concentrates TV production in one factory (YM TV Factory), while MEC has two TV factories.

Generally speaking, transplants are at a disadvantage from the viewpoint of production technology. Production volume of transplants is smaller than that of their parent factories. Furthermore, transplants produce many models in response to local needs. Thus, the production lot of one model is much smaller than that of the parent companies. It is difficult for transplants to enjoy economies of scale.

In this respect, however, MEC Malaysia TV Company is exceptional. Under the production strategy of MEC TV Division, this transplant is to produce several mass production models.

2.3. Recruitment, Labor Turnover, Employment Adjustment

The yearly labour turnover rate, method of adjusting employment to seasonal fluctuation in demand, and forms of peripheral work force are as follows:

MEC

Japan IK TV Factory: Male 0.8%, female 5.5%. Small seasonal fluctuation of demand. Overtime. Temporary workers, part-timers.

Taiwan Electric Company: Indirect 16%, direct 88%. Small seasonal fluctuation of demand. Overtime. Temporary workers.

Malaysia Electric Company: Total 5%. Overtime.

Malaysia TV Company: Total 72%. Just began operation. Major investment for more production.

U.K. TV Company: Total 18%. Big seasonal fluctuation of demand. Overtime. Temporary workers.

HEC

Japan YM TV Company: Male 1%, female 4.2%. Small seasonal fluctuation of demand. Overtime. Temporary workers, part-timers.

Taiwan TV Company: Total 35%. Big seasonal fluctuation of demand. Overtime. Part-timers, temporary work by students.

China Joint TV Company: Very small labour turnover. Investment for more production. Overtime. Temporary workers.

Singapore TV Company: Total 40–74%. Big seasonal fluctuation of demand. No peripheral work force (use of high labour turnover).

U.K. TV Company: Total 7%. Big seasonal fluctuation of demand. Overtime. Temporary work.

Germany VCR Company: Indirect 10%, direct 19%. Big seasonal fluctuation of demand. Overtime. Temporary workers, part-timers, dispatched workers.

As is usual in Japan, the parent factories both recruit new school leavers as regular employees. The Japanese school year ends at the end of March, and companies employ new school graduates at the beginning of April. These are called "regular entrants". Students have semi-official employment contracts with companies in their last year of school education. Male employees are expected to stay in the company until the compulsory retirement age (60 years). Female employees are expected to retire when they marry or have babies. As employees have no experience in other companies, it is easy for Japanese companies to train them and to claim their loyalty.

Usually transplants use newspaper advertisements, labour offices, or in-house advertisements for recruitment. Only the Taiwan transplants (MEC and HEC) recruit new school graduates as in Japan. However, the labour turnover rate in the Taiwan transplants is much higher than that of parent factories. They have to fill vacancies by recruiting workers who have experience in other companies. Even the Taiwan transplants cannot close out the internal labour market.

It is interesting to notice that there is a big difference in labour turnover rate between MEC Malaysia Electric Company (5%) and MEC Malaysia TV Company (72%). As the transplants are both located near the city of Kuala Lumpur, regional characteristics do not explain the big difference. One reason for it is that Electric Company has operated for 25 years and has its own corporate culture. TV Company just started operating in 1989 and is now seeking a corporate identity. Another reason is that Electric Company produces many electric and electronic products mainly for the domestic market. TV Company produces only TV sets and exclusively for export to the Middle East, Southeast Asia, and Australia. The motto of the company is "World No.1 Quality from MEC Malaysia TV Company". To attain this goal, the company has introduced the most advanced machines from Japan and educates employees strictly on manners, work ethics, and quality consciousness. This strict management seems to contribute to the high turnover rate.

The difference in turnover rate between MEC U.K. TV Company (18%) and HEC U.K. TV Company (7%) can be explained by regional conditions. MEC TV Company is near a big city, and HEC TV Company is located in a coal mining district with high rates of unemployment.

In Europe seasonal fluctuation of production volume is bigger than in Asia. European bottom production volume in the first half of the year is half of peak volume in December, which reflects Christmas sales.

The main methods of coping with seasonal fluctuations of production volume are common in parent factories and transplants: overtime and employment of peripheral workers (temporary workers and part-timers). The parent factories and the majority of the transplants feel no serious obstacles to ordering overtime. But HEC Taiwan TV Company and HEC Germany VCR Company think that they have difficulties with flexible overtime. In the case of HEC Taiwan TV Company, flexible overtime is difficult, because the company is located in the free trade zone, to which access is not easy. If the company orders long overtime shifts, special buses have to be ordered to take women workers home. In the case of Germany VCR Company, the Japanese managerial staff regard German labour customs and practices as less flexible than they would prefer. Japanese managerial staff members often complain that labour turnover rate in transplants is too high for cultivation of employees. In some cases, however, heavy labour turnover is a favourable factor in employment adjustment. For example, HEC Singapore TV Company does not need to employ peripheral workers: the company can adjust employment simply by utilizing high labour turnover.

2.4. Promotion System

Employee promotion systems of the parent factories and the transplants are as follows:

MEC

Japan IK TV Factory: Internal promotion.
Taiwan Electric Company: Internal promotion.
Malaysia Electric Company: Internal promotion.
Malaysia TV Company: External recruitment.
U.K. TV Company: Internal promotion and external recruitment.

HEC

Japan YM TV Company: Internal promotion.
Taiwan TV Company: Internal promotion.
China Joint TV Company: Internal promotion.
Singapore TV Company: Internal promotion.
U.K. TV Company: Internal promotion and external recruitment.
Germany VCR Company: Internal promotion and external recruitment.

The managerial hierarchy of the transplants is almost the same as that of the parent companies. For example, the "executive manager" of HEC U.K. TV Company is the equivalent of *buchō* of HEC in Japan. In HEC, the

managerial hierarchy of the parent factory and HEC U.K. TV Company are as follows:

<i>kōjōchō</i>	– Managing Director
<i>buchō</i>	– Executive
<i>kachō</i>	– Senior Manager
<i>shunin</i>	– Middle Manager
<i>kumichō</i>	– Team Leader

In practice, however, when a *shunin* (middle manager) of the parent company is dispatched to U.K. TV Company, his nominal hierarchy is two ranks higher than that of *shunin*.

In the parent factories there is a so-called “qualification system”. Taking MEC as an example, employees are promoted from the rank and file to *tannin*, *shunin*, *shuji*, *fuku-sanji*, and *sanji*. The “qualification” roughly corresponds to the managerial hierarchy. For employees of MEC and HEC, promotion in line with “qualification” is decisively important.

Among the transplants surveyed, MEC Taiwan Electric Company, HEC Taiwan TV Company, and HEC China Joint TV Company have qualification systems. In the other transplants there is no qualification system, which suggests that such a system is possible only in East Asian countries.

All transplants practice internal promotion. It is noteworthy that the transplants in Asia, including the parent factories, practice internal promotion only. MEC Malaysia TV Company recruits managerial staff and supervisors on the external market, simply because the company has just started operations and has no internal human resources. The transplants in Europe combine internal promotion and external recruitment for managerial staff. This suggests that transplants in Asia use the internal labour market for managerial staff to a considerable degree. The transplants in Europe experience frequent labour turnover of managerial staff, and it is difficult to fill vacancies through internal promotion alone.

Who is to be promoted is normally decided by personnel evaluation. But HEC Singapore TV Company is an exception. In this company promotion is based on length of service within the company. As the turnover rate of both workers and managerial staff is very high, the company is compelled to regard length of service as the most important criteria for internal promotion.

All managing directors (*kōjōchō*) of the transplants are Japanese. Japanese are assigned to different sections in each transplant. However, all transplants employ a local person as the top manager for personnel management. It is almost impossible for Japanese managerial staff to have a thorough knowledge of local labour law and information on local customs

and practice, and also to be able to take into account the feelings of local employees.

In order to control the personnel management of the transplant, the managing director consults with Japanese staff members. MEC and HEC both dispatch the managers of their accounting departments to transplants as de facto assistants to the managing directors. The dispatched accounting manager has general knowledge of personnel management. In cases where industrial relations are tense, HEC's parent factory dispatches the personnel manager; at present, this is the case at the U.K. TV Company. The personnel manager dispatched to the U.K. transplant is called an "advisor", with the same hierarchical status as "executive". The function and authority of this "advisor" are not clearly specified, but in practice, the local "executive" personnel manager consults with the advisor before important decisions are made.

2.5. Wage System

The wage system of the parent companies and their transplants are summarized as follows:

MEC

Japan IK TV Factory: "Qualification", Age, personnel evaluation.

Taiwan Electric Company: "Qualification", personnel evaluation.

Malaysia Electric Company: Job grade, personnel evaluation.

Malaysia TV Company: Job, personnel evaluation.

U.K. TV Company: Job grade.

HEC

Japan YM TV Company: Job grade, "qualification", personnel evaluation.

Taiwan TV Company: "qualification", personnel evaluation.

China Joint TV Company: Age, attendance, "qualification", personnel evaluation.

Singapore TV Company: Job grade.

U.K. TV Company: Job grade, personnel evaluation.

Germany VCR Company: Job grade, personnel evaluation (not on all employees, but *Facharbeiter* (skilled employees) and upwards).

Each Japanese company has its own complicated and unique wage system. The wage systems of MEC and HEC are so complicated that it is not possible to explain it here. (On the wage system of HEC, see Tokunaga et al., 1991: 185ff., and on MEC, see Enterprise Union of MEC 1988.)

Very roughly speaking, the wage systems of MEC and HEC are similar in principle, based mainly on "qualification" and personnel evaluation.

In addition, some other wage categories are added: age-related wages in MEC and job-related wages in HEC.

As has been pointed out already, a "qualification" system exists in MEC Taiwan Electric Company, HEC Taiwan TV Company, and HEC China Joint TV Company. The wages in these transplants are mainly determined by "qualification", as in the parent factories. These three companies conduct personnel evaluation of all employees, and the result is reflected in the wage amount. In this sense, the wage systems of these companies are similar to those of the parent factories.

In the other companies, the wage is mainly determined by job grade. However, there are two subtypes. In one subtype the job grade determines the amount of wage (MEC U.K. TV Company, HEC Singapore TV Company). In the other subtype the result of personnel evaluation affects the wage amount (MEC Malaysia Electric Company, MEC Malaysia TV Company, HEC U.K. TV Company).

Three Japan-specific and unique features of the Japanese wage system seem to be commonly understood among researchers:

- 1) Longer length of service and older age bring higher wages.
- 2) Wages are not directly related to the job, but rather to the "qualification" of each employee.
- 3) Personnel evaluation is conducted on all employees and affects wage amount.

In HEC Singapore TV Company, annual wage increase rate is higher than initial wage increase rate wage, and thus longer length of service brings higher wage. In MEC Taiwan Electric Company and HEC TV Company, there is a "qualification system" which affects wages decisively. Personnel evaluation for wages is conducted in the majority of the transplants of MEC and HEC.

All in all, the features that are supposed to be "Japan-specific" are practiced in overseas transplants. They do not depend on the Japanese society, culture, or mentality. Are there no elements in the wage system in Japan that are not practicable in foreign countries? In my opinion, there is one feature that is not applicable to overseas transplants: the complicated nature of the wage system.

The wage system of a Japanese company is so complicated that researchers have to visit several times in order to understand it. Furthermore, the wage system is very often kept secret. As stated above, the principles of the wage systems in MEC Taiwan Electric Company and HEC Taiwan TV Company are similar to those of their parent factories. But the actual wage system of the Taiwan transplants is simple. This suggests that wage system with "qualification system" and personnel evaluation is not always complicated.

2.6. Industrial Relations

Labour representative organizations of the parent factories and the transplants are as follows:

MEC

Japan IK TV Factory: In-house union.

Taiwan Electric Company: In-house union.

Malaysia Electric Company: Industrial union.

Malaysia TV Company: No labour representative (in future, recognition of an industrial union).

U.K. TV Company: Industrial union and employees' representative.

HEC

Japan YM TV Company: In-house union.

Taiwan TV Company: In-house union.

China Joint TV Company: "Labor union" under leadership of the Communist Party.

Singapore TV Company: In-house union.

U.K. TV Company: Industrial union and employees' representative.

Germany VCR Company: Works Council (*Betriebsrat*).

In Asia, MEC and HEC transplants recognize in-house unions. The only exception is Malaysia. MEC Malaysia Electric Company recognizes the industrial union of electricians, but MEC Malaysia TV Company recognizes neither an industrial nor an in-house union. The company has begun operations only in 1989, and it asked the union to wait for recognition. There is an oral agreement between MEC Malaysia TV Company and the industrial union of electricians that the company will recognize the union when its operation is stable.

In the U.K., MEC TV Company recognizes the General, Municipal, Boilermakers and Allied Trade Union (GMBU), and HEC TV Company, the Electrical, Electronic, Telecommunication and Plumbing Union (EETPU). Both companies have "single union agreements". The reason MEC U.K. TV Company recognizes GMBU can be explained by the historical background. When MEC established the transplant at the end of the 1970s, EETPU was not yet prepared for cooperation with companies. The other MEC transplants in the U.K., which were established later recognize the EETPU.

In HEC U.K. TV Company there is a joint committee for consultation, which is composed of representatives from the management, from EETPU and from the employees. This committee is named the Company Members Board (CMB), but the Japanese managerial staff of the company often call

it a "union". This suggests that Japanese managers are so accustomed to in-house unions that they regard the CMB a kind of union.

In Germany, HEC VCR Company does not recognize IG Metall. The company negotiates with the works council (*Betriebsrat*) as labour's representative. It is estimated that only about 10 among 500 employees are organized by IG Metall. However, of the 9 members of the works council 4 are members of IG Metall. This suggests that the employees support the policies of IG Metall, though they are not active enough to be union members.

Thus, Japanese transplants tend to organize in-house unions and are reluctant to recognize industrial unions. In countries where industrial unions have dominant influence, however, Japanese transplants do negotiate with them.

2.7. Printed Circuit Board Assembly Line

Features of printed circuit board assembly lines (PCB) of the parent factories and the transplants are summarized as follows:

MEC

Japan IK TV Factory: Auto insertion 92–99%. 2-shift for the automated line. Loose work organization. Use of subcontractors.

Taiwan Electric Company: Auto insertion 80%. 2-shift for the automated line. Almost no subcontractors.

Malaysia Electric Company: Auto insertion 65%. Almost no subcontractors.

Malaysia TV Company: Auto insertion 85%. 3-shift for the automated line. Strict work organization. No subcontractors.

U.K. TV Company: Auto insertion 85%. 3-shift for the automated line. Strict work organization. No subcontractors.

HEC

Japan YM TV Company: Auto insertion 85–98%. 3-shift for the automated line. Loose work organization. Use of subcontractors.

Taiwan TV Company: Auto insertion 83%. 3-shift for the automated line. Strict work organization. No subcontractors.

China Joint TV Company: Auto insertion 0%. Automated line in planning. 3-shift and strict work organization. Almost no subcontractors.

Singapore TV Company: Auto insertion 75–79%. 3-shift for the automated line. Strict work organization. No subcontractors.

U.K. TV Company: Auto insertion 80–93%. 3-shift for the automated line. Strict work organization. No subcontractors.

Germany VCR Company: No PCB assembly (TV chassis are supplied by U.K. TV Company).

Usually TV companies have a PCB assembly line and a final assembly line. I compare the PCB assembly line of the parent factories and the transplants, because it is highly automated. Final assembly is much less automated than PCB assembly.

In the parent factory of MEC, the degree of automation (automatically inserted parts/all inserted parts) is 92–99%; in HEC, 85–98%. The automation degree of HEC is lower than that of MEC, mainly because the calculation method is different.

Both parent factories use subcontractors for assembling PCBs. In both parent factories, PCBs which are standardized and designed for mass production are assembled in-house. PCBs for which production lot is small are assembled by subcontractors. As a result of this division of labour, automation in-house is easier than in subcontractors. In MEC the in-house automation degree is 92–99%, but the automation degree in subcontractors is 85–90%. (HEC calculates automation degree as a total that includes the subcontractors.)

Of course, there are differences in the PCB assembly line concept between MEC and HEC. The most important difference is that MEC uses mount surface devices (MSD), and HEC does not. But as a whole, the assembly line of both factories has common features.

First, as stated above, both factories utilize subcontractors to a considerable degree.

Second, though automation is highly developed in both factories, there remain stations for manual assembly, and there is a gender-based division of labour. On the manual assembly line female workers are assigned to parts insertion and simple inspection, while male workers are responsible for setup or PCB repair.

Third, work organization of the automated line is flexible and unclear. In both factories it is the aim of the management that all workers on the automated line can do all jobs within each group of machines (parts supply, setup, simple maintenance of machines, etc.). The important precondition of this work organization is that all the direct workers are male. According to Japanese labour laws, night shifts for female workers are prohibited, and the automated PCB assembly line is operated in 2-shift (MEC) or 3-shift (HEC) arrangements.

Comparing PCB assembly lines in overseas transplants with those of the parent factories, the features of transplants are as follows:

First, auto insertion degree in the transplants is lower than in the parent companies. Automation in transplants is not easy because of the small production lots. However, it cannot be said that the automation degree in transplants is much lower than that in the parent factories. The difference in automation degree is that the transplants have not introduced

insertion robots for odd-shaped parts. (Automation in China HEC Joint TV Company is 0%. Up until 1990 the company's first goal has been to keep up the rate of employment; this is a political request from the Chinese government. Investment has not been made in labour-saving production lines as a result.)

Second, transplants utilize no subcontractors, or use them only to a limited degree. Managers of transplants point out that utilizing subcontractors is not profitable, because in foreign countries the wage difference between the transplants and subcontractors is not large enough. This means that transplants have to assemble non-mass-produced PCBs in-house, too, which makes assembly automation difficult.

Third, work organization in transplants is clear and fixed. For example, in Singapore HEC TV Company, there is a clear division of labour between maintenance staff and direct operators. Direct operators are responsible for parts charge and other very simple jobs. If machines stop, the maintenance staff repairs them. However, the skill level of the maintenance staff is limited, and the management has to ask the maker of the machines to repair them when the trouble is beyond the maintenance staff's level. The company replaces machines rather than repairing them, because it does not trust the maintenance staff.

3. CONCLUDING REMARKS

The research results are summarized in Table 1. Four characteristics are difficult to practice in overseas transplants:

- 1) closed internal labour market,
- 2) complicated wage system,
- 3) subcontract system,
- 4) flexible work organization.

These four elements can be called "Japanese-specific".

Why are they difficult to transfer to overseas transplants? It seems that they depend on the economic and social conditions in Japan.

1) Subcontractors: The most important precondition of the subcontract system is that wages of subcontractors be significantly lower than those of parent companies. In foreign countries the wage difference is not so large as in Japan. Japanese transplants are not so influential in foreign countries that they can make the wage difference larger.

2) Closed internal labour market, complicated wage system, flexible work organization: A closed internal labour market is basic to a complicated wage system and flexible work organization. When the labour

market is closed, the company can manage employees individually and thoroughly. The complicated wage system is both a precondition for and a result of individual management of employees. The wage is a kind of secret between the company and the individual employee. Employees do not talk about their wage amounts among themselves, and they do not know the wages of their colleagues. As the personnel management is so thoroughly individualized, in-house unions are not very active. Flexible work organization is required to motivate workers who are expected to stay in the company for many years. Female workers are excluded from the system of "human resource development": they are expected to retire from the company when they marry or have babies. The simple jobs which remain in spite of high automation are given to female workers. Division of labour by gender is the precondition of flexible work organization among male workers on the automated line.

Can "Japanese management" influence management philosophy and style in foreign countries? This question is beyond the parameters of my research. However, "Japan-specific" measures are difficult to practice in foreign countries, because they are not transferred even to transplants of Japanese companies. Other characteristics can be transferred to local companies. How much the local companies will be influenced depends on their competitiveness in the world market. If they are weak competitors, they may be more likely to feel that "Japanese management" is an alternative to their traditional management.

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WORKS COUNCILS AND ENTERPRISE-LEVEL INDUSTRIAL RELATIONS IN GERMAN TRANSPLANTS OF JAPANESE FIRMS

Christoph Deutschmann

ABSTRACT

This paper summarizes and comments on some recent studies of management and industrial relations in German transplants of Japanese companies. So far, Japanese direct investment in Germany has been rather limited and confined largely to small subsidiaries in the trade, real estate and banking sectors and to the consumer electronics industry. The studies show that, due to the big institutional and cultural differences and to their still relatively ethnocentric personnel policies, Japanese firms have difficulties in becoming familiar with the legal and institutional context of German industrial relations. These difficulties result in problems in complying with labour law, disputes with works councils and communication problems with employees. Consistent attempts of firms to transfer Japanese management concepts to their German subsidiaries could not be observed. At the sectoral level, the integration of Japanese companies into employer organizations and the collective bargaining system seems to be proceeding gradually.

CONTENTS

1. Japanese direct investment in Germany and the question of transferability of Japanese management techniques
 2. The institutional context
 3. The relations between management and works councils in German transplants of Japanese firms
 4. "Japanization" of work organization?
 5. Japanese management, employer organizations and centralized collective bargaining
 6. Conclusion
- Bibliography

1. JAPANESE DIRECT INVESTMENT IN GERMANY AND THE QUESTION OF TRANSFERABILITY OF JAPANESE MANAGEMENT TECHNIQUES

Since the mid-1980s, Japanese direct investment in Europe has increased rapidly, from a yearly flow of 1.9 billion dollars in 1985 to 14.8 billion in 1989, with accumulated stock totalling 44.9 billion dollars in 1989. Ja-

panese investment in Germany rose as well, although at least until 1989 Germany was not among the countries mostly preferred by Japanese companies. Broken down by country, by far the largest share (38.3%) of the investment flows between 1987 and 1989 went to the United Kingdom; second and third came the Netherlands and Luxemburg, and the Federal Republic of Germany was only fourth, with a share of 6.2%. So far it is not yet clear whether the preferences of Japanese investors will change under the influence of the unification of Germany and the political reforms in Eastern Europe.

Japanese direct investment in the Federal Republic amounted to 3.45 billions of dollars in 1988. Viewed by economic sector, more than one third (1.35 billion) of the investment was in the trade sector, 1.1 billion in banking, real estate and other services, and another 1 billion in manufacturing. Within manufacturing, Japanese firms were most strongly represented in the electro-, electronics, machine manufacturing and chemical industries. According to the statistics of the Bundesbank (Federal Bank), the number of Japanese-owned firms in Germany was 360 in 1988, with a total employment of 62,800. The average size of firms thus is relatively small (all figures on Japanese investment from Ernst and Hilpert 1990: 45ff.).

Industrial relations in foreign subsidiaries of Japanese firms have attracted the particular attention of researchers for several reasons. An often-discussed point is related to the effects of internationalization on the structure of Japanese companies: Are Japanese companies maintaining their hitherto strongly centralized and ethnocentric control system, or is there a move toward "true" multinationalization and "localization" of strategic decisions, with the consequence also of an increased share of locally recruited executive staff? A second complex of research questions refers to the possible transfer of Japanese management techniques abroad. To what degree do Japanese companies try to implement their particular management and industrial relations system in their foreign subsidiaries; and to what degree, on the other hand, do they adapt to the institutional and socio-cultural framework of a foreign society? Is the Japanese management system really transferable to non-Japanese socio-cultural contexts? What are the possible benefits for employees and unions, and what are the typical problems and conflicts?

It is neither possible nor my intention here to recapitulate the vast debate about the transferability of Japanese management which has been continuing for about 20 years. I think that a part of the problems addressed by the question has found a practical answer, since as a matter of fact several originally Japanese organization practices, such as "just-in-time" logistics, "lean" production, worker flexibility and participation have been adopted in the meantime, at least in part, by many U.S. and European

firms. But it is equally clear that Japanese management is more than a simple set of organizational recipes. The proper "functioning" of these recipes in turn is based on a set of culturally very specific, often more implicit than explicit, norms of social behaviour. According to the culturalist argument, we should expect that because of the vital role that flexibility, informality and implicit understanding play in the governance of Japanese firms, Japanese management is bound to a certain extent to its domestic socio-cultural context and therefore meets with exceptional difficulties when being implemented in a different institutional and socio-cultural framework.

Against the background of this controversy I want to consider enterprise-level industrial relations and the role of works councils in German subsidiaries of Japanese firms. Unfortunately the empirical basis of my paper is relatively thin. There are only two non-commercial institutions in Germany that do regular research on Japanese firms in Germany and to whose works I shall refer largely in the following: the East Asian Seminar (OAS) in Berlin, under the guidance of Professor Sung Jo Park, and the Ifo-Institute in München (Angelika Ernst, Helmut Laumer and Hanns-Günther Hilpert). Additionally, there are only some rather casual contributions from individual authors. My own research experience is confined to some observations at a seminar with works councillors of seven consumer electronics factories belonging to five Japanese companies in the region of Lower Saxony (one Düsseldorf-based headquarter was also represented), which took place in summer of 1989. Moreover, I refer to an interview on issues of organizational decentralization with works councillors of a Japanese-owned consumer electronics firm near Stuttgart.

2. THE INSTITUTIONAL CONTEXT

When establishing plants in Germany, Japanese companies are faced with an institutional context that is very different from Japanese society as well as from other European societies. A first important difference is the social security system. In comparison with Japan, the general social security system in Germany is much more developed and strongly centralized. The level of obligatory non-wage labour costs is correspondingly high. Legal non-wage labour costs which have to be paid by all employers irrespective of the size of the enterprise (except in the case of marginal employees working less than half time), amount to 36% of the wages. Additionally, there are a number of fringe benefits determined by industry-wide collective bargaining agreements or paid on a voluntary

basis, which add up to 45% of direct wages, the latter differing to some degree by size of enterprise. Thus, no less than 81% of direct wages (27,674 DM per average employee in manufacturing in 1988) is paid additionally in form of fringe benefits and social security contributions (Statistisches Bundesamt 1990: 469) – a figure that is around twice as high as in Japan. Moreover, Japanese investors are often said to be deterred by the fact that in Germany not only are wage and non-wage labour costs considerable, but regular and overtime working are also among the shortest in all developed industrial countries.

A further difference between Japan and Germany is the mode of conflict regulation. In Germany it is far more usual than in Japan to settle individual and collective work disputes by juridical argument instead by informal agreement. A close web of collective bargaining agreements, collective and individual labour laws and a special system of labour jurisdiction regulates procedural and substantive issues of labour relations as well as the status, rights and obligations of individual workers and of collective interest representation, including worker codetermination at the enterprise level. The high level of “juridification” of German industrial relations leaves comparatively little room for unilateral employer discretion in handling work, compensation and employment matters, much less than Japanese employers and managers are accustomed to having. At the same time, the strong juridical position of workers presses employers and manager to seek consensual solutions in work matters with works councils and unions.

A third crucial difference relates to the structure of industrial relations. In contrast to the Japanese system of enterprise unionism, unions, employer organizations and collective bargaining in Germany have their focus at the sectoral level. Collective bargaining agreements on wages, working hours and other issues apply to all firms in a given industry, irrespective of firm size or firm-specific degree of unionization. The system has provided a relatively high level of industrial peace so far, but it seems to meet with disapproval from Japanese employers because of its egalitarian implications and the limits it puts on employer discretion in fixing wages and working hours. In particular, the system does not allow that high degree of wage differentiation between large and small firms which makes Japanese-type subcontracting relations so profitable for the large core firms.

The institutional and economic conditions encountered by Japanese and other foreign firms when investing in Germany by no means appear unfavourable in every respect. The high educational level and qualification of workers, the high rate of productivity, the cooperative structure of industrial relations and the well-developed public infrastructure are

often-cited factors which contribute to the competitiveness of the German economy and without which its international strong position could hardly be explained. Nevertheless, it appears particularly difficult for Japanese investors to adjust themselves to the cultural, institutional and legal context of industrial relations in Germany, and these difficulties may explain the reluctance of Japanese companies to settle in Germany. It is therefore of particular interest to see how the relatively small group of Japanese companies which, in spite of all reservations, decided to set up transplants in Germany are managing the problems of cultural and institutional adaptation.

3. THE RELATIONS BETWEEN MANAGEMENT AND WORKS COUNCILS IN GERMAN TRANSPLANTS OF JAPANESE FIRMS

The works council is the core institution of enterprise-level industrial relations in Germany. Works councils are not a union organ but are established by law, although the DGB unions (Deutscher Gewerkschaftsbund) in fact are strongly represented in most works councils. According to the Works Constitution Act (*Betriebsverfassungsgesetz*), works councils are to be established in firms with at least five employees. The works council has no right to call for a strike and is legally obliged to maintain a relationship of trust and cooperation with management. It oversees the implementation of existing collective bargaining agreements and legal norms in the plant and is endowed with a set of explicitly defined rights to information, consultation and codetermination. The codetermination rights apply to such matters as the performance-based wage systems, work schedules, overtime, regulation of holidays, introduction of control devices and personnel issues (not including layoffs, in which case only the works council must be consulted). Consultation rights refer to matters of work organization, design of jobs and work environment, and rights to information on economic decisions. Whereas the activities of the works council are focused on the plant level, there is a second level of codetermination at the level of top management of large companies with 2000 employees and more; this level includes worker and union representation on supervisory boards and the inclusion of the so-called *Arbeitsdirektor* (work director) in top management.

Since Japanese subsidiaries in Germany usually are rather small, only the first level of codetermination by works councils is relevant for us. How do Japanese companies in Germany cope with the institution of works councils? Professor Park and his researchers at the East Asian Seminar

(OAS) in Berlin have conducted two empirical surveys on labour relations and management patterns in Japanese subsidiaries which also contain information on works councils (Merz et al. 1985; Yasui et al. 1990). The first survey was done in 1984/85, the second in 1988/1989. Both surveys were based on the same questionnaire in order to allow intertemporal comparisons; additionally, the team conducted expert interviews in 1985 (Demes et al. 1985). Unfortunately the second survey fails to meet the criteria of statistical representativity because of the small number of respondents (29); another shortcoming of both surveys (except for the expert interviews in the first survey) was that only the management side was contacted.

The OAS studies show that in most of the small Japanese subsidiaries (fewer than 100 employees) works councils continued to be non-existent up to 1989. In middle-sized firms (100 employees or more), however, works councils were already widespread in 1985 and had been introduced almost everywhere (94% of firms) in 1989. Broken down by branches, all manufacturing firms had works councils in 1989, while they were nearly absent (89% of firms) in the trading companies. The researchers found a strong correlation between the institution of works councils and the firm-specific unionization rate. This result is not surprising, and conforms with the situation in many small German firms, which often (in around half of small firms) lack works councils. Interestingly, however, the OAS researchers also found a strong correlation between the existence of works councils and the nationality of the personnel manager: Only one of the 9 companies which had a Japanese personnel manager had established a works council, but 13 of the 16 firms with a German personnel manager had done so. I will come back to the interpretation of this finding later.

At first sight one would not expect Japanese executives to have major difficulties in coming to good terms with works councils. Several observers, such as Koike (1988), have pointed to the similarities between the functions and the intra-firm position of German works councils and Japanese enterprise unions. Koike (1998: 246) compares the role of works councils and company unions in intra-firm consultation in the two countries and concludes that "there is actually a close resemblance". From this point of view it should be easy for Japanese executives to establish consultation practices with work councils which are similar to the relations with their company unions at home.

The reality, however, seems to be quite different. Let me first refer to a recent newspaper report on a court dispute between the management and the works council at the central office of Toyota in Cologne (Südwest-Presse, Nov. 28, 1990). The works council had protested against the high amount of overtime (19 to 25 hours, sometimes more than 50 hours, per

month) demanded by the company and against the permanent violation of the works councils' codetermination rights by the management. The case was appealed to the highest level, the *Bundesarbeitsgericht* (Federal Labour Court), which decided in favour of the works council, stating explicitly that workers are not required to comply with "tacit expectations" of the employer with regard to overtime. To cite another example: When Toshiba opened a new subsidiary at Brunswick in Lower Saxony five years ago, the journal of the metal workers union *IG Metall* (Metall, no. 21/1987: 14) reported on conflicts between the management and the local union. When the factory was opened, the management first tried to prevent the election of a works council (instead it offered a so called "company council" to the employees); it also refused to stick to the existing collective wage agreements. The union had to go to court over both issues.

My own observations at a seminar with works councillors from Japanese firms in Lower Saxony confirm the impression of often rather tense relations between management and works councils. Certainly, labour-management relations appeared not to be equally adversarial in all eight firms. But at least half of the works councillors reported on lasting disputes with the management over labour law and codetermination issues, frequent settlement (*Einigungsstelle*) procedures and even court disputes. Again the violation of codetermination rights over working hours proved to be a prominent source of conflict. The problem in the background was that the Tokyo headquarters set production targets that were conceived by workers and works councils as excessively unrealistic *vis-à-vis* the scarce manpower capacity the company was willing to employ. The mismatch between production targets and actual capacity led to extreme overtime demands by the management, which were rejected by the works councils.

The picture of a tense work climate is confirmed – last, but not least – by the OAS studies. A striking result of both surveys was the high rate of personnel turnover that was found in both studies: The yearly turnover rate exceeded 20% in approximately a third of all firms and varied between 10 and 19% in a further 36% (44% in the second study). When explicitly asked for their evaluation of the work climate, two thirds of the managers interviewed in both surveys characterized it as positive and less than a quarter as negative. However, according to the second survey, the companies with "negative" climates were predominantly those with a German personnel manager and a works council. Moreover, both surveys showed that the negative evaluation of the work climate was strongest in firms with high union density rates. On the other hand, companies with no unions, no works council and Japanese personnel managers characterized their work climate almost unanimously as "positive".

These findings represent the views of the Japanese management. They do not reflect the opinion of the workers and works councils, and they are – to emphasize it once more – neither representative nor methodologically uncontroversial. But they indicate again the difficulties of Japanese firms in adjusting themselves to the German industrial relations context at the enterprise level. The OAS studies give no clear evidence about whether these difficulties are permanent or reflect only temporary adaptation problems: According to the first survey, the intra-firm tensions increased with years of operation; according to the second, they diminished.

What are the reasons underlying these adaptation and communication problems? The works councillors I interviewed often complained about the lack of understanding of their Japanese counterparts about the nature and the details of German labour law and the Works Constitution Act. Some of the Japanese executives even seemed to ridicule the “funny German labour law”, as one works councillor quoted a manager of his firm as saying. Similarly, Demes et al. observed “considerable information deficits of the Japanese management on legal stipulations and practices in industrial relations” (Demes et al. 1985: 23). Although there were cases of cooperation between conscientious works councils and managements, collective bargaining agreements and codetermination rights were often ignored by the companies. A particular source of conflict was the lack of understanding of individual workers’ rights on the side of the management, such as the right to maternity leave, to full utilization of holidays and to receive an adequate certificate when leaving the company. In such cases, the firms often engaged in pointless juridical disputes that led to bitterness on both sides. The root of the problem here is, as Demes et al. postulate, not only ignorance of the details of labour law but a lack of understanding of the nature of “juridified” social relations itself. Self-conscious insistence on individual workers’ rights by subordinates seems to be something that is difficult for Japanese executives to accept (Demes et al. 1985: 25). What we observe here is clearly a cultural barrier in labour-management relations in Japanese subsidiaries.

The problems are exacerbated by the ethnocentric personnel policies most Japanese corporations are still pursuing at the top management level. Although most firms agree to the principle of “localization” of the management of their subsidiaries, localization proceeds only slowly in practice. According to the second OAS study, only 3 of the top managers of the 29 firms investigated were Germans, and the share of the German executives was even lower in the first study (Yasui et al. 1990: 22). The vital managerial functions of Japanese subsidiaries in Germany, such as controlling, financing and product planning, in most cases continue to be performed by Japanese nationals (Ernst and Hilpert 1990: 122f.). German nationals are most

strongly represented in personnel management; however, their work is usually tightly controlled by their Japanese supervisors and by the Tokyo headquarters. Just the fact that communication with headquarters is conducted in Japanese and mostly has to take place during the night excludes them from important decision-making processes. The turnover rate of German managers, not only at top level but even more so at middle and lower levels is rather high because of frustration over limited promotion prospects and the lack of understanding of their Japanese bosses (Heise 1989); these are the same reasons Japanese companies are reported to have difficulties in attracting qualified local managerial personnel.

However, a high turnover rate prevails also on the side of the Japanese nationals. In order to avoid reintegration problems at home, many executives stay only for relatively short periods (two or three years) – too short to become familiar with their socio-cultural environment. Moreover, most of the Japanese nationals and their families live an isolated life in separated settlements and dormitories. As the Lower Saxonian works councillors told me, many of the Japanese top managers continue their habit of going to the office even on Saturdays and Sundays. (The German executives were at first expected to join them, but they refused to do so.) Under these circumstances, it is not astonishing that cultural barriers are diminishing very slowly.

4. "JAPANIZATION" OF WORK ORGANIZATION?

So far we can conclude that the idea of union-management harmony which usually is attributed to Japanese management can be applied to the relations between works councils and management in Japanese subsidiaries in Germany to only a limited degree. But what about the other "typical" features of Japanese management – for example, "loyalty" as a vital criterion of recruitment, permanent employment, flexible allocation of work, emphasis on on-the-job training, emphasis on quality, small-group activities, downplaying of status differentials, etc.? How far do Japanese companies attempt to introduce these concepts in their German subsidiaries; and, if they do so, what kind of response do they meet?

The transfer of Japanese production concepts to European subsidiaries has been studied thoroughly only in Britain (Takamiya and Thurley 1985; Reitsperger 1986; Ackroyd et al. 1988; Wilkinson and Oliver 1990) so far. Three important results came out of these studies:

a) Japanese companies indeed tried to implement their specific organization and management techniques in their British subsidiaries, although

as a rule they proceeded pragmatically and with caution. The response of the employees, however, differed in the blue-collar and white-collar realms.

b) In the blue-collar realm the workers often reacted more positively than expected to the "Japanization" of production methods. They seemed to appreciate the upgrading of their qualifications, the increase of discipline and responsibility and the emphasis on shop floor egalitarianism (Trevor 1989), although there were also negative responses to the intensification of work and the moral indoctrination practised by the Japanese management. Interestingly, the strongest negative reactions seemed to occur not at Japanese companies themselves but at Western firms which tried to emulate Japanese practices. The British Ford blue-collar workers protested with the slogan "We're Brits, not Nips" during their strike at the beginning of 1988 (Wilkinson and Oliver 1990: 349).

c) Reactions in the white-collar realm, on the other hand, were more negative than anticipated. British managers were often frustrated at the monopolization of important decisions by the Japanese executives, the lack of promotion prospects, the social distance they felt from their Japanese colleagues and the ambiguity of the decision-making processes (Ernst and Hilpert 1990; Trevor 1990).

The evidence we have about work practices in German subsidiaries is much more shaky than that about British ones. However, with appropriate caution the following can be stated: The British findings about the negative response of white-collar employees and local staffs are confirmed. Heise (1989: 219) observed considerable frustration of German managers with the decision-making process of their Japanese bosses: More than 80% of all managers interviewed in Heise's survey felt that the slow, cumbersome and over-centralized coordination process with the Tokyo headquarter created a "negative working environment" which induced little or no motivation. According to Ernst and Hilpert (1990: 119) the local staff often expresses discontent with the lack of clear functional and occupational demarcations and the companies' ignorance of workers' privacy: "Japanese management is not familiar with the demarcation of privacy and the strict separation of work and leisure." A further major source of complaint for white-collar employees are the low promotion chances, which result in a high turnover rate among the most talented staff members (Demes et al. 1985: 21).

The picture in the blue-collar realm is more contradictory. On the one hand, some of the British findings are confirmed by the views expressed by the experts quoted in the study of Demes et al. (1985). According to the latter, German workers, too, seem to appreciate the egalitarian behaviour of Japanese supervisors and the professional attention they pay

to the details of the production process. Similarly, a high intensity of work ("bell to bell" working) and an emphasis on tight work discipline and control was observed in German subsidiaries as well. Some of the Lower Saxonian works councillors I met made fun of what they felt to be their management's obsession with order, discipline and tidiness.

At the same time, however, many of the German subsidiaries seem to hesitate to transfer Japanese management concepts to the organization of their shop floor work. Probably this has to do with the dominance of the consumer electronics sector, with its large share of female workers and low-level assembling production processes. None of the seven Japanese plants whose works councils I met at the seminar in Lower Saxony had taken any initiative in introducing semi-autonomous work groups or other types of flexible work organization. In all cases the assembling process on the shop floor was organized according to classic Taylorist principles: monotonous, repetitive and highly intensive work. Quality circles or other types of small group activities did not exist either. The observations our research team (Deutschmann et al. 1990) made when visiting another Japan-based consumer electronics firm near Stuttgart confirmed this picture of a rather conservative work environment. The firm, which was established by buying out a former German company in 1975, originally had tried to implement a QC programme on the shop floor, which met with quite a positive response from the workers. Although the Japanese headquarters made a great effort to support the QC movement, the initiative failed after some time and had to be cancelled due to lack of interest and participation. According to the works councils we interviewed, the main reason for the failure was hidden sabotage by masters and foremen who felt that their position could be threatened by more worker participation. Abo, who visited the same plant some years earlier, noted an "excessive presence of the German methods" on the shop floor (Abo 1987: 48). Thus, at least in the cases of consumer electronics plants, the headquarters in Tokyo apparently did not engage in a consequent attempt to change the work organization in conformity with the concepts of Japanese management.

In examining the practices of recruitment, training and employment one again finds much evidence of conservative and pragmatic behaviour by Japanese companies. While the authors of the first OAS survey (Merz et al. 1975) still found that most firms followed their original Japanese practice of putting particular emphasis on loyalty and such other personal characteristics as criteria when recruiting, the second survey (Yasui et al. 1990: 30f.) noted a marked shift towards qualification-oriented criteria. Considering the small average size of Japanese subsidiaries in Germany and their strong growth, the absence of elaborate internal training systems

via systematic job rotation and personnel development, and of any approach to "lifetime employment" is not surprising (Kitscha et al. 1988). According to Abo (1987), Japanese firms even complain about the high training costs imposed on them by the "dual system" of vocational education which is institutionalized on a supra-firm level in Germany. The reluctance to invest in training corresponds to the insistence on conventional Tayloristic work organization mentioned above.

To conclude, there seems to be not much evidence for a "Japanization" of the work organization at the shop floor level in Japanese-owned plants in Germany. The positive incentives workers are offered in the Japanese system – a flexible organization of work, broad participation and qualification of workers, continuous employment – are largely non-existent in the German subsidiaries. Perhaps this is one explanation for the often strained labour relations.

5. JAPANESE MANAGEMENT, EMPLOYER ORGANIZATIONS AND CENTRALIZED COLLECTIVE BARGAINING

The strong "juridification" of labour-management relations which we already have identified as a source of tension between works councils and Japanese managers surely is one of the most important socio-cultural characteristics of the German industrial relations system. Two other peculiarities, which differ as strikingly from the institutional context of Japanese industrial relations, are the centralized and highly elaborate welfare system and the system of sectoral-level collective bargaining between industrial unions and employer organizations. How do Japanese companies cope with the latter?

The high social security contributions which make Germany a country with a very high level of non-wage labour costs is – of course – one of the issues that raises frequent complaints from foreign investors. But since employer social insurance contributions are obligatory (except – as mentioned above – in the case of marginal employment), management has no choice but to comply with the legal prescriptions.

What about the involvement of Japanese firms in the collective bargaining system? The first OAS survey revealed that Japanese companies were quite hesitant to join the employers' association of their industry: Only among the companies operating already for more than 15 years in Germany were the majority (60%) members of an employers' association. Of the firms which were established less than 15 years ago, only a minority were willing to join. However, in the second survey (1988/89), the number

of Japanese members of employer associations, in particular in the manufacturing, trade and banking sectors, had risen markedly (14 of all 29 firms were members of employers' associations). Membership of the firms in the employers' associations correlated closely with the union density rate of their employees (Yasui et al. 1990: 44). This can be taken as an indication that the Japanese firms joined the employers' associations largely as a response to the union activities of their workers, thus gradually integrating themselves into the sectoral collective bargaining system.

A similar tendency toward integration becomes visible when we consider the share of Japanese firms observing the existing collective bargaining agreements (on wages, work conditions, working hours, etc.). In both OAS surveys, around two thirds of all firms investigated respected collective bargaining agreements; the second survey, however, revealed a marked rise in the share of newly established firms who observed the collective bargaining agreements (Yasui et al. 1990: 45). All banking and manufacturing firms paid and employed their workers according to the collective bargaining stipulations, and most of them granted an additional wage or fringe benefit supplement. Substandard payment and work conditions occurred only in the distribution sector, and particularly in the trading firms.

6. CONCLUSION

I have tried to summarize the so far still rather shaky and fragmentary results of empirical research on industrial relations in German subsidiaries of Japanese firms. We have considered the relations between works councils and management, the forms of work organization in Japanese companies and the involvement of Japanese management in the institutions of sectoral collective bargaining. Two general results can be concluded from our review:

First, if one keeps in mind the major institutional and socio-cultural differences between the German and the Japanese industrial relations systems, it could not be expected that the expansion of Japanese companies in Germany would be a process that runs smoothly and without contradictions. Socioculturally founded conflicts become apparent in the relations between works councils and Japanese management, in the handling of labour law, works constitutions and other juridical matters. A further source of conflict and contradiction is the still relatively ethnocentric personnel policy of Japanese corporations at the managerial level which – as at least some observers suspect – is not transitory but reflects a deeper

unwillingness of Japanese management to "multinationalize" itself. The particular adaption problems of Japanese companies in Germany may also result from their specific investment strategies: By confining their manufacturing investment to low-value-added assembly processes they restrict themselves to a conventional Taylorist work regime which is neither particularly competitive at an international level nor allows Japanese management concepts and their productive advantages to be brought fully into effect. From this view, much speaks in favour of the culturalist thesis that the same cultural peculiarities that have made Japanese management so successful at home inhibit its internationalization and its success in other countries.

Second, it is equally clear that the process of internationalization confronts Japanese firms with the need to adapt in the area of industrial relations as well as in other fields. When internationalizing themselves, Japanese firms inevitably learn the wisdom of the principle: When in Rome, do as the Romans do. They have to observe and adapt to the national labour laws, the institutional structure and the socio-cultural environment. We have found evidence for this gradual adaptation in the increase of the number of works councils in Japanese firms, in (the albeit) slow progress of "localization" of Japanese management and in the field of collective bargaining. We do not know so far which changes in the structures of Japanese corporations themselves will result from these local adaptation processes in Germany, as elsewhere. Surely such changes will occur only gradually and over the long term, but it is hoped that they will move in the direction of true multinationalization.

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CONTRADICTIONS IN THE TEAM CONCEPT

AUTO TRANSPLANTS AND LABOUR RELATIONS IN NORTH AMERICA

Christian Berggren and Torsten Björkman

ABSTRACT

In the early 1980s Japanese auto makers started to export plants, and not only cars, to North America. In 1990 ten transplants in the US and Canada produced 1.7 million vehicles. Most of them closely matched Japanese quality and productivity levels. This chapter examines working conditions and labour relations, analyzing six cases:

- Honda in Ohio, the pioneer;
- Toyota in Kentucky, the most elitist of all transplants;
- Nissan in Tennessee, an aggressively anti-union operation;
- Mazda in Flat Rock, Michigan, where Japanese managers encountered Detroit militancy;
- Diamond Star in Illinois, "a robot wonderland" and
- CAMI (Canadian Automobile Manufacturing Inc.) in Ontario, the first transplant organized by the Canadian Auto Workers' Union.

The authors find scant support for the widespread claims that Japanese "lean production" revolutionizes working conditions. Fordist rigidities are replaced by new strains, resulting in a deeply contradictory pattern of intensified work. Initially supportive union locals have started to fight for more solid contracts. The chapter concludes by stressing the need for European unions to formulate a strategy for "post-lean" production.

CONTENTS

1. Introduction
 - 1.1. From export of cars to export of plants
 - 1.2. Two basic prerequisites: Rigorous selection of suppliers and workers
2. Honda in Ohio – the first and most successful transplant
 - 2.1. Employment and personnel policy
 - 2.2. Military style organization of work?
 - 2.3. Discrimination against minorities – and American managers?
3. Toyota in Georgetown, Kentucky – Honda's principal Japanese rival
 - 3.1. Hard fighting unionists – among the construction workers
 - 3.2. Team Toyota
4. Nissan, Tennessee – victory of anti-union strategies

5. Mazda – the Japanese transplant in Detroit
 - 5.1. Sweeping promises...
 - 5.2. ...which Mazda failed to keep
 - 5.3. Union politics at Mazda
 6. Diamond Star – paradox of automation and understaffing
 - 6.1. A robot wonderland? Production design with blind automation
 - 6.2. Employment policies and work organization
 - 6.3. An increasingly critical union
 7. CAMI – Japanese management meets the Canadian union culture
 - 7.1. Organization in teams
 - 7.2. Central union issues: staffing and overtime
 8. "You don't need a union to go backwards": transplants and union attitudes in the U.S. and Canada
 9. Conclusion: The need for a post-lean strategy
- Bibliography

1. INTRODUCTION¹

1.1. From Export of Cars to Export of Plants

In the 1970s the Japanese auto companies were very successful in exporting cars to North America. In the 1980s they were equally successful in exporting their production system. They have erected new facilities at a furious tempo, replicating the fierce domestic competition between car producers in Japan in North America. Technically most of the new factories are virtual clones of Japanese sister plants, with Japanese production equipment ranging from industrial robotics to transfer presses. More importantly, the Japanese manufacturing culture is also transplanted, as is the supply strategy. Honda and Nissan were the pioneers; now every Japanese car maker has at least one manufacturing facility in North America (see Table 1). In organizational theory, there has been a widespread view that organizations adapt to their environment and, accordingly, that transferred organizations tend to take on new characteristics, deviating from their parents' mode of operation. The Japanese auto companies in North America have tried to apply a different logic, changing the new environment, including labour relations and worker behaviour, to suit the needs of their production system, rather than adapting their system to the different environment. The initial success of this approach was im-

¹ This study was made possible by a contribution from the Swedish Work Environment Fund (Arbetsmiljöfonden). A full report of the plant visits is given in Berggren et al. (1991).

pressive, but recently it has encountered increasing resistance, and the long-term mixture of transplantation and adaptation is an open-ended question.

Table 1: Japanese auto transplants in North America in 1990

Company	Location	Start year	Production in 1000 units 1989	Production in 1000 units 1990
<i>U.S.A.</i>				
Honda	Marysville/Ohio	1982	360	435
Nissan	Smyrna/Tennessee	1983	240	240
NUMMI (Toyota & GM)	Fremont/California	1984	190	200
Toyota	Georgetown/Kentucky	1988	150	220
Mazda	Flat Rock/Michigan	1987	220	180
Diamond Star (Chrysler & Mitsubishi)	Normal/Illinois	1988	90	150
SIA (Subaru & Isuzu)	Lafayette/Indiana	1989	10	70
<i>Canada</i>				
Honda	Alliston	1988	90	100
Toyota	Cambridge	1989	20	60
CAMI (Suzuki & GM)	Ingersoll Ontario	1990	–	70

Sources: Business Week, Aug. 14, 1989; Automotive News 1991.

The transplants have rapidly increased their production. In 1990 the combined output was 1.7 million units, with quality and productivity levels closely matching, and in some cases even surpassing, Japanese levels. The announcement in early 1992 of General Motor's (GM) plans to reduce its work force by 74,000 employees and idle 21 plants is a measure of the enormous pressure the Japanese transplants have created on the American manufacturers.

The focus of this chapter will not be on the remarkable achievements of the transplants, but on their working conditions and labour relations. Together with Ernst Hollander, also from the Royal Institute of Technology in Stockholm, we visited six of the ten transplants in November 1990: Nissan, Honda/Ohio, Toyota/Kentucky, Mazda, CAMI and Diamond

Star. We met personnel and production managers, process engineers and Public Relations (PR) officials. At the three unionized operations, Mazda, CAMI and Diamond Star, we also had separate meetings with the union locals, complemented by seminars and interviews with researchers at the unions' headquarters, United Automobile Workers' (UAW) Solidarity House in Detroit and Canadian Auto Workers (CAW) in Toronto. The "cluster approach" of visiting a number of plants in the same industry during a short time-span, coupled with efforts to get multiple perspectives on each plant, gave a broad survey and the opportunity to identify important patterns. Nevertheless, short plant visits are no substitutes for careful in-depth research, and we must emphasize the limits of our first-hand observations. Wherever possible we tried to check our own findings with secondary sources. Genuine research on working conditions in the transplants has just started. One of the most interesting projects is the study launched by the Canadian Auto Workers Research Group, which we discuss in the section dealing with the CAMI plant.

1.2. Two Basic Prerequisites: Rigorous Selection of Suppliers and Workers

All the Japanese factories, except Mazda, are situated in rural areas or in small towns with no industrial tradition. The Japanese have tried to escape what they regard as the corrupting influence of America's cities on life-style and morale. Another common feature is rigorous personnel selection. Auto work is attractive everywhere in North America, because of high wages and extensive benefit packages, compared to most manufacturing or service jobs. However, few workers have had any chance of getting a job at any of the Big Three companies, since GM, Ford and Chrysler have dismissed far more workers in recent years than they have hired. The transplants contrast with this pattern. As a result, the Japanese have been able to pick and choose among applicants as few other industrial enterprises have been able to do. The opening of all the transplants has been accompanied by a large number of applicants and an extensive screening process. The transplant work force represents an elite group in several respects, physically as well as mentally: young, strong, intelligent, good mannered, highly motivated and prepared to cooperate. Workers are largely white and from a rural background. The Japanese auto makers have regarded previous work experience in the American automobile industry as a serious handicap rather than a merit.

The transplants have been equally careful in selecting their suppliers. With its 600,000 workers and \$100 billion worth of sales, the auto parts industry is the largest single manufacturing sector of the U.S. economy. Many firms expected to expand their business with the advent of the

transplants and were prepared to work hard to comply with stringent Japanese demands on quality and just-in-time deliveries. Few were successful in obtaining any significant orders. Especially for sophisticated, higher value-added components, the Japanese auto firms preferred their traditional Japanese suppliers, and prodded them to build their own supplier transplants in North America. In 1990 there were at least 350 such operations, virtually all of them non-union. Honda has worked hardest to establish itself on American soil. Nevertheless, according to a report by the Office for the Study of Automotive Transportation at the University of Michigan (Business Week, Nov. 18, 1991), American firms provided parts for only 16 % of the value of a Honda Civic in 1989, compared to the 38% worth of imported parts and the 26% delivered by U.S.-based Japanese suppliers.²

A rigorous selection of workers and of suppliers is a basic prerequisite for the operation of the Toyota production system, which all transplants try to implement more or less consistently. Great emphasis is put on cross-training and flexible transfer of workers to different assignments. Management expects all workers to participate in the continuous improvement activities known as *kaizen*. For each operation there is a standardized way of doing the work. This is mandatory and portrayed in instructive pictures – called programmed worksheets at Mazda – with the required time in seconds clearly displayed. Management encourages suggestions for improvements in the standardized methods of work, but does not permit individual adaptations and personal ways of doing the work. The emphasis on visibility and standardization is a typical feature of the Japanese system of production control. However, as reported in *Automotive News* (June 3, 1991), the transplants have not been able to implement the inspection-free methods supposedly working in Japan. At Toyota in Kentucky, for example, inspectors have to fix problems in 10 percent of the cars, and at Honda's plant in Ontario a reject rate of 11 percent has been reported.

A striking feature of all transplants is the strict factory discipline. All employees wear the company's uniform with their first names and the

² Many Japanese supplier firms who followed their customers abroad faced hard times in the U.S. According to a report from McKinsey published in 1991 (*Automotive News*, May 27, 1991), profit margins at the supplier transplants were far below the standards in Japan. One of the reasons was their difficulty in locating materials and subparts that met Japanese specifications. Another problem was that their customer only produced a limited, usually low-priced product line in America, whereas in Japan they could also deliver to the car-maker's higher-margin vehicles.

company's logo on it. Usually no deviation is allowed, except that wearing the cap may be voluntary indoors. Honda and Toyota, however, insist that employees wear the company cap at all times. Attendance is carefully monitored. At Diamond Star, a worker gets two minus points if he or she is five minutes late. Six minus points during one year could result in dismissal.

Transplants have abolished the title of supervisor, though the function remains. New terms are now used, which vary from transplant to transplant. Terms such as "group leader" and "coordinator" are intended to create positive and modern associations with team games and coaching. The power of these revamped foremen has not decreased but is reinforced compared to that of traditional supervisors. The work force is organized in small groups led by team leaders, who work together with the teams and direct their quality control and *kaizen* activities. In most cases their power is insignificant compared to that of the group leader or coordinator. At Toyota in Kentucky the team leader and foreman are one and the same person, so the rank and file do not suffer from the ambiguities that are characteristic of most transplants.

At the management level the transplants appear to be very hierarchical. The key positions are duplicated by a Japanese dispatchee working together with an American colleague. The *de facto* boss is Japanese. Nissan is an exception in this respect as Americanization has gone further here than at the other transplants. Nissan is the second oldest Japanese auto maker and was originally modelled after American car manufacturers. It seems to have retained some of its reliance on American management.

2. HONDA IN OHIO – THE FIRST AND MOST SUCCESSFUL TRANSPLANT

Honda was the first Japanese company to invest in the United States (Honda of America Manufacturing Inc. (HAM)). Its central Ohio complex, which started production in 1982, now produces 430,000 cars per year and employs 10,000 workers. The Honda Accord is made in Marysville, the oldest plant in the complex. Accord has for several years been the best-selling car in the U.S. The Honda Civic is manufactured in the East Liberty plant which started production in 1989. In the little village of Anna, not far from Marysville, Honda has constructed one of the world's most highly automated engine factories, which had been in operation only one year at the time of our visit.

2.1. Employment and Personnel Policy

Like all subsequent transplants, Honda had a large number of applicants to choose from when it started its first car plant. The first core group of 100 was selected from among 3,000 job-seekers. Honda's personnel officer maintained that they do not weed out people in the same way as at Toyota in Georgetown. In his view Honda attempts to create well-functioning teams, whereas Toyota chooses the individuals with the best test results. Honda commends itself on having a more relaxed atmosphere and a workplace that is less characterized by aggressive careerism and competitiveness than at Toyota.

At HAM everybody wears cap and uniform. There are no indications of rank on the jacket, only the person's first name. Employees are awarded points for contributions, such as making suggestions for improvements, high quality work, and protection and safety work. To start circles of co-workers on matters of quality, productivity, team spirit, safety issues, etc. also leads to the award of points. The highest reward, given to those who have participated most in voluntary activities (Voluntary Involvement Program – VIP), is 5,000 points. This is worth a Honda car and a trip for two anywhere in the world. Judging from the interviews, model workers seem to choose to travel to Japan.

2.2. Military Style Organization of Work?

Work organization at the engine plant had a strongly collectivist, quasi-military appearance. Many departments in the production process marked their collective identity with signs, banners, display cases or other information materials. "You are now entering the best aluminium foundry in the world." "Here you can see the progress we have made since the start of X-campaign." When a team started its shift, members gathered in a group to listen to a summary of the day's tasks by the team leader. He used a microphone to talk to them for five or ten minutes. At the end of the shift, workers were not allowed to go to the changing rooms individually. The team assembled at its special information point in the workshop, before trooping together to the changing rooms. Insistence on uniform wearing contributed to the military impression. In some sections of the workshop helmets were mandatory, in others the company cap. No production employees were allowed to wear decorations on their uniforms; wrist watches and rings were also prohibited. Management argued that this was to protect the engines from damage. Thus there was very little freedom of individuality and personal expression. Early reports from the car plant in Marysville (for example, in *Washington Monthly*, July-Aug.

1986) conveyed a picture of very high work intensity and considerable risks of work injuries. The pace on a manual line, which we observed in the engine plant, confirmed this view. Nevertheless, an attempt in 1985 by UAW to organize the plant was a dismal failure.

2.3. Discrimination Against Minorities – and American Managers?

One of the important reasons Honda chose Marysville, Ohio, for its location was that the Japanese appreciated the stable rural community of German-Americans. They represented a white population group that Honda managers trusted, whereas they were very sceptical toward urban blacks. To avoid minority job applications they stipulated that only people living within a 30-mile radius of the small town of Marysville could apply to Honda. This excluded residents of Columbus, a medium-sized city with a large black population. As a result the proportion of minorities was remarkably low, only about 4 percent of Honda's work force. This has led to accusations of racial discrimination and to court cases that Honda lost. Now the company has to recruit from a larger area, but most jobs have already been filled.

Another area of dissent has been the positions and prospects of American managers. In spite of Honda's long operation in the U.S. there are still several hundred Japanese dispatchees working as advisors. They always seem to be right, and their word weighs more heavily than that of the Americans. This is a widely held opinion at least among the Americans who have left key positions at Honda, feeling that an American never becomes a full member of the management team. As a response to this criticism Honda has started a programme of sending groups of American engineers to Japan for periods of two to three years. The stated objective is to enlarge their promotion possibilities and make the American operation more self-reliant. According to the Japanese labour economist Inuo Shozo, interviewed in *Automotive News* (July 8, 1991), this programme is another way for Honda to tighten control over its U.S. operation, not relinquish it.

American suppliers form a third discontent category. Many have tried to improve their performance in order to comply with the exacting Japanese demands on quality, cost and delivery. What has come as an unwelcome surprise for many suppliers, however, is that the Japanese do not provide particularly specific or unambiguous orders. The Japanese customer maintains he has not received what he has ordered, while the American supplier defends himself by saying he never received such a request. (For a reader of Shoichiro Sei's contribution to this volume, the plight of the American suppliers will come as no surprise.) In late 1990,

Honda was featured in the mass media as a warning example of how the Japanese treat their American suppliers. They were accused in the *Wall Street Journal* (Oct. 9, 1990) of systematically outmaneuvering the American supplier to favour the Japanese. Honda has refuted the allegations of discrimination. It has promised that all suppliers who cooperate and participate in development will find Honda an excellent company to supply.

Honda was the first auto maker to invest in a transplant and has become a prototype for the other Japanese auto manufacturers. HAM's success is irrefutable and impressive, but the company has also been criticized for its recruitment policies, promotion practices and supplier selection. Hitherto, management response has implied only minor adaptations, most notably in recruitment practice. Growth and expansion continue. Recently, Honda has announced an increased commitment to conduct product development in the United States.

3. TOYOTA IN GEORGETOWN, KENTUCKY – HONDA'S PRINCIPAL JAPANESE RIVAL

In the countryside outside Georgetown, Kentucky, Toyota is erecting the second largest transplant complex in North America, comprising both car and engine production. The first cars rolled off the line in 1989. Initially, Toyota was very sceptical about the possibility of transferring its production system to the U.S., which it viewed as decaying both industrially and in terms of its educational system. To minimize the risks and costs Toyota decided to team up with GM in the NUMMI-joint venture in California, which used a refurbished GM plant. This UAW-organized operation started in 1984 and was an immediate success. For Toyota it was only the beginning. In the future, the company was determined to go alone and non-union, and with a carefully selected greenfield site.

3.1. *Hard Fighting Unionists – Among the Construction Workers*

The surroundings of the Toyota plant in Kentucky are rural. Its neighbours are stud-farms. Kentucky, "the Bluegrass State", is best known for horse breeding. Lexington, the city closest to Georgetown, is famous as the world capital of the horse trade. Toyota has set up an organization of Kentucky suppliers, which is called the Bluegrass Automotive Manufacturers' Association (BAMA). In the early 1980s, the local press accused Kentucky governor Martha Layne Collins of "losing" the location competition for GM's Saturn plant to Tennessee. Collins was quite determined

to capture Toyota. She travelled to Japan several times and assembled an incentive package that made Kentucky the best alternative for Toyota. In December 1985 Toyota accepted the offer. The plant was constructed by non-union companies. Further state support, in the form of additional tax abatements extracted from Kentucky taxpayers, led local opinion to turn against Toyota. The company faced several lawsuits for damages. In the end Toyota backed down and agreed, among other concessions, to use unionized firms.

When the plant started it was very successful in applying Toyota's elaborate production control methods. In 1990 Georgetown had the second-highest quality level of any auto plant in North America – second only to Toyota's Canadian plant in Cambridge, Ontario. That year the construction of a second car plant commenced. When it is completed in 1994, Georgetown will produce 440,000 cars and 300,000 engines a year and be a miniature version of the Toyota city production complex in Japan. In the new expansion phase Toyota has been eager to avoid the public relation mistakes of the 1980s. Unionized construction workers have been employed from the very start. However, the 3,500 plant employees are not unionized and UAW has made no significant attempt to organize them.

3.2. Team Toyota

Toyota refers to its Georgetown work force as "Team Toyota". In the selection process employees' educational background, as measured by traditional achievement indicators such as grades, is not important. This provides a chance for people who did not do very well at school but who are ambitious and want to succeed. At the time of our visit we got a daunting picture of the tough screening-out process. First, all applicants took an IQ test. The half with lower scores was eliminated. Then manual dexterity was tested, and again people with poor scores were eliminated. Tests of ambition, initiative and creativity followed. Role playing to test group orientation and adaptability was also used to weed out candidates. This resulted in a work force aggressively orientated toward achievement. Workers compete not only to be the best as a group, but also to advance their individual ambitions. In a lean organization this is a dilemma, as there are not many steps on the career ladder. The ambitious employee is easily disappointed if he or she must remain at the same level with the same pattern of work rotation, year after year. Toyota has only been in Georgetown for three years. There is a distinct risk that people will quit and find more challenging and demanding work elsewhere, once the exciting expansion phase is concluded.

Both perfectionism and discipline were evident at the Toyota plant. It may be hard to identify what exactly creates such a feeling, but some examples follow: Everything we saw was extremely clean and well organized. Most people walked so fast that they were almost running. They greeted each other quickly and with military respect.

Toyota has proceeded from collaboration with GM and the UAW at NUMMI to refining its own system at the Kentucky complex. The company has been extremely selective in its choice of employees and has the most pronounced elitism of all the transplants. Only the best is good enough for Team Toyota. Supplier circles talk about Toyota with a combination of fear and admiration. Toyota's resources are several times greater than those of the other Japanese companies. Now it is going all out in its exclusivist transplant strategy. In all probability it will succeed, at the cost of other companies both American and Japanese.

4. NISSAN, TENNESSEE – VICTORY OF ANTI-UNION STRATEGIES

After Honda, Nissan is the most international of Japan's auto companies. As early as 1966, the company built a plant in Mexico. By the end of the decade some form of local production facility had been established in 21 countries. In the U.S. Nissan stands out as the most Americanized firm. The other companies employ hundreds of Japanese managers and advisors in their transplants – after more than a decade Honda is still staffing all central decision making positions with Japanese. Nissan is almost completely run by Americans, though the CEO (chief executive officer) has always been Japanese. Company uniform is not mandatory, nor is participation in quality circles or morning aerobics.

In the early 1950s Nissan in Japan was a leader in destroying the radical auto workers' trade union movement. Nevertheless, the company union subsequently established at Nissan had a stronger position than its equivalents at Toyota and Honda, which meant that rationalization at Nissan could not go as far as at Toyota. In the early 1980s a tougher new management forced the union to back down, which created considerable tension. When planning its investment in the U.S., Nissan was determined not to make any allowances for American unions and appointed managers, mostly recruited from Ford, who were outspokenly anti-union.

The establishment of Nissan in Smyrna, about 20 miles from Nashville (a centre in the "Biblebelt"), was announced in 1980. Three years later production of a carefully chosen, easily built product, a small pick-up truck, started. In 1985 production of a small passenger car, the Sentra, was

added. At the time of our visit the company had 3,900 employees producing 250,000 vehicles a year. Various services and maintenance jobs were outsourced. There are plans to start production in 1992 of a second passenger car, the Stanza. This would increase the totals to 440,000 vehicles and 5,500 employees. Compared to other transplants, the Smyrna facility is unusually spacious. Final assembly is completely manual and very flexible: on the fast-moving conveyor belt both cars and trucks are assembled.

In the anti-union state of Tennessee the average production worker earned \$6 per hour in 1990. Nissan paid \$12–15 per hour. From the start the company also took great pains to promote a new work culture: team spirit, cooperation, trust, an open door policy, commitment circles to discuss problems, and job security. This provided Nissan with considerable publicity. Almost 200,000 applied for 3,000 advertised jobs! The opportunity for careful selection was great. Among other things, applicants had to participate in an unpaid training programme of between 40 and 200 hours before being hired, in order to give the company better opportunities for making its selection. In 1984 Nissan was listed among the 10 best-run companies in *Fortune* and was included in the book *The Best 100 Companies to Work For in America*. When the company advertised 150 additional jobs at the end of 1988, there were 20,000 applicants.

By then the plant was exposed to a fair amount of criticism in both the local and the national press. The main issues raised were the pace of work, the high risk of injuries and the difficulties faced by injured workers in finding easier jobs. Articles in *The Progressive* and *In These Times* suggested that the company had on several occasions fired employees after injuries made it impossible for them to work at top speed. According to an interview in *The Progressive* (June 1987) this was company policy:

As soon as people are injured they have no use for them, says Hardin (a former foreman). You take the best employee, a hard worker with a good attitude, and, say, an elbow goes out from overwork. They'll say 'Get him the hell outta here'. It is hard for me to believe it, but I have seen it.

In early 1988, the UAW began a campaign to organize the plant. This campaign, which is described in detail by Gelsanliter (1990) continued until July 1989, when, despite considerable effort, it ended in a shattering defeat for the union. Why did it fail so decisively? One important reason was the carefully selected work force with its relatively high wages and employment benefits (sick-pay, pensions, etc.). Another reason was that the company was able to offer job security. This was very important for the employees who had watched one UAW-organized GM plant after the other close down during the 1980s. Not even during the large drop in

sales in 1988, when tens of thousands of unsold cars cluttered the parking lot, were any workers laid off. Right in the middle of UAW's organizing campaign in 1989, Nissan announced plans to expand production. According to the company this would not be of any use to the people of Tennessee if the UAW won the election. Then the jobs would go to laid-off UAW members from other states, just as had happened at GM's neighbouring Saturn plant! (Management glossed over the crucial difference: that Nissan, unlike GM, did not have laid-off workers in any other state!) The "soft" contracts the UAW had signed with Mazda-Flat Rock and Toyota at NUMMI in order to be more attractive to the Japanese were also exploited in Tennessee as arguments against unionization. For instance, a leaflet quoted an article on Mazda, "The high number of injuries among workers at Mazda in Michigan raises fundamental questions", and commented: "Look what UAW did for them". The company paper *Nissan News* challenged workers to ask union organizers why "NUMMI employees, who are represented by the UAW, regard their work as eight hours of tough aerobics"? After the union's defeat, Nissan fired many union activists, according to information from the UAW in Detroit.

According to the book *The Machine That Changed the World* (Womack et al. 1990), the Smyrna plant is both the most American of the Japanese transplants and the least productive. The continued expansion nevertheless indicates optimism and self-confidence. In Tennessee Nissan is still an attractive employer. "People could kill to get a job there," said the woman who drove us to the plant in a taxi from Nashville.

5. MAZDA – THE JAPANESE TRANSPLANT IN DETROIT

Mazda is the fourth largest of the Japanese auto makers, with headquarters in Hiroshima. The plant that is closest to being a prototype for Flat Rock is in Hofu, a few miles outside Hiroshima. The company has tried to compensate for its limited size by entering several alliances. Its most important partner is Ford.

5.1. Sweeping Promises...

Like Toyota in the NUMMI case, Mazda chose a brown-field site for its first American plant. The facility in Flat Rock is located outside Detroit, in an old steel and car district in decline. During the 1970s, a large Ford factory in Flat Rock had employed 5000 workers. In 1982 it was shut down. Two years later Mazda started the construction work on its new

plant. The UAW, under the leadership of President Owen Bieber, negotiated an unconventional contract, under which Mazda got virtually a free hand to deploy workers according to production needs, as perceived by management. The UAW hoped to use Flat Rock as a precedent when approaching the non-organized transplants.

Many were surprised that Mazda dared to establish itself in the heartland of the American auto industry. The company's collaboration with Ford is probably an important part of the explanation. A section of the plant produces Ford cars whose suppliers were primarily staffed by UAW members. If the company chose an anti-union strategy like Nissan, a good deal of trouble might crop up in the future. The state of Michigan, where politicians in the mid-1980s were fairly desperate after many plant closings, particularly among auto makers, also offered Mazda very significant economic incentives including a 100 percent tax abatement for its first 12 years.

Mazda was able to select its 3,000 employees from among 95,000 applicants. This enabled the company to set up very clear search profiles for the kind of employees wanted. They should be intelligent and physically strong, preferably also young with many years to go before reaching retirement, thus moving the payment of pension benefits far into the future. Employees should also be highly motivated to work for a Japanese company, outgoing, and group-oriented. Under no circumstances should they be critical or complaining, according to the battery of tests used to select the finest work force. To the surprise of the Japanese, a remarkable number of women passed the tests with high scores. Part of the explanation was found in the tests of group work and group orientation: the ability to listen and encourage others to contribute to a common solution is more typical among women than among men. The employees chosen constituted an elite group of strong and positive people. In the autumn of 1990, when the atmosphere had deteriorated considerably compared to the production start in 1987, everyone we talked to still agreed that there were many wonderful people at Flat Rock.

At the start the company provided employees with orientation courses and many training sessions. Efforts were made to create a broad range of competence so that in principle each worker could work at most stations. Only two job classifications were applied: production and maintenance. The skilled workers were in the maintenance teams. In the production teams there were virtually no employees with former experience in the auto industry. Many of them came from the retail trade or the fast food chains, and at Mazda their incomes were two or three times higher than previously. The orientation programmes from the period before production start-up created the expectation that Mazda would be an ideal work-

place. Everybody would be able to learn and develop at work. Human relations at the workplace would be just that, human, and characterized by mutual trust and consideration.

5.2. ...Which Mazda Failed to Keep

When expansion began, the promises proved not to be worth much. This was particularly true of the rapid work pace when the plant changed from one to two shifts in mid-1988. During that hot summer the lack of sufficient ventilation in the plant was a grave problem. Many employees collapsed. Management allowed no drinks or water coolers on the premises. Many employees felt this showed that flexibility was a one-way street, meant to promote company interests. When employees' interests were at stake, the company showed itself to be utterly rigid.

A much-detested policy has been the difficulty of informing one's family about overtime work. Many employees are single mothers who think their children ought to be told what time their mother is coming home. Company management has replied that parental concerns are not a company priority. In some periods working hours have been very long and overtime has been ordered at very short notice. The union considered the plant heavily understaffed. Earnings are higher, but so is wear and tear due to the fast work pace.

Another source of dissent at Flat Rock was the existence of a second-class work force, called the Support Member Pool, consisting of temporary workers hired during production peaks. They did not receive proper training and had no job security. If, for some reason, team leaders were dissatisfied with them, they were never called back to work again; this was a blow as most of them were otherwise virtually unemployed. Despite these conditions, they were union members and had to pay union fees.

According to documents quoted in the *Detroit Free Press* (July 7, 1990), the rate of injury was three to four times higher at Mazda in 1988 than at traditional auto factories in Michigan. Management has not denied the figures but has argued that most of the reported injuries could be accounted for by the inexperience of the employees and were not very serious. The union was of the opinion, however, that many of the reported injuries caused irreversible musculo-skeletal disorders that would handicap many employees for the rest of their working lives. In 1988 Mazda reported 97 cases of repeat or cumulative trauma disorders, and the following year 95 cases. In 1990 the number fell to "only" 60 cases. Mazda attributed the decrease to its ergonomics programme, including installation of stabilizers and reaction bars to absorb torque shock. According to union representatives, however, the main reason for the falling number of reported cases was company-induced fear and intimidation. The

Detroit press (*Automotive News*, Dec 9, 1991) cited a number of cases in which injured workers had been fired.

Mazda has received a great deal of bad publicity. The promised mutual trust has turned into distrust. "They promised us a rose garden. They gave us a desert," was the succinct comment made by the new president of the UAW local, Phil Keeling. The question is whether Mazda really is worse than the other transplants. Perhaps the company is simply more visible. The plant is located in Detroit, where lay-offs in the auto industry have had catastrophic consequences. Many inhabitants of the city have mixed feelings about a nearby Japanese car factory. The local press is knowledgeable about the auto industry and has had good reason for stringent coverage of Mazda.

5.3. Union Politics at Mazda

The plant started with a very cooperative, not to say acquiescent, union leadership put in place by the UAW regional organization. But as a consequence of rapidly growing worker resentment of the new management methods, the first local elections resulted in a much more militant leadership. At the time of our visit (November 1990) the new president had recently been re-elected and was feverishly preparing for the negotiations of a new contract. Some time later, 90% of the workers voted to give this leadership the right to call a strike if negotiations stalled. The new Mazda contract was finalized in March 1991 and is interesting as the first case in which a union, with strong membership support, has been able to modify the "lean production principles". In the 1992 contract negotiations at Diamond Star and CAMI, the two other unionized transplants not from Detroit, this contract will be an important reference point. The most significant novelties of the 1991 Mazda contract were:

- Advance notice to the union regarding the introduction of new technology, including changes in plant layout and work processes;
- more union influence in company decisions about the outsourcing of work and the use of outside contractors;
- major improvements of the union's position regarding health and safety, such as the establishment of a written health and safety grievance procedure, the addition of an additional full-time health and safety representative and a full-time ergonomics representative, a joint ergonomics training programme and union access to information such as symptoms surveys, etc.;
- elimination of the Support Member Pool, and strict rules for employing temporary workers in the future.

It is not atypical for an American (or Canadian) union to agree to a weak first contract in order to establish collective bargaining. The intention is to make incremental gains as strength is built up in the local union. The second contract with Mazda illustrates this strategy.

6. DIAMOND STAR – PARADOX OF AUTOMATION AND UNDERSTAFFING

Diamond Star (DMS) in Illinois is an independent company, jointly owned by Mitsubishi and Chrysler. The contract was signed in 1985 and three years later the plant went into production. In 1990 3,000 employees produced 150,000 cars, still some way from the plant's full production capacity of 240,000 cars per year. The 2,300 production workers were local, i.e., they lived in Normal-Bloomington and the surrounding areas. Management's make-up was different: there were Chrysler employees, Mitsubishi dispatchees and managers employed by DMS. Fifty Japanese were permanently stationed in Normal, but their number increased to several hundred in periods of major changes, for example, when new models were introduced. Mitsubishi is solely responsible for developing the products, equipment and management. Like Mazda, Mitsubishi is in a lower class than Japan's Big Three, Toyota, Nissan and Honda. The company is backed by huge resources, though, as a member of the mighty Mitsubishi group, one of the major Japanese conglomerates. Due to Chrysler's economic problems, Mitsubishi probably will acquire the whole joint venture.

6.1. *A Robot Wonderland? Production Design with Blind Automation*

The advanced technology of the factory reflects Mitsubishi's high-tech profile. The philosophy is to enforce very stringent tolerance standards from the beginning by eliminating the possibility of subsequently adjusting and adapting the equipment and products. Automatic welding occurs "blindly", i.e. without the help of a vision system to fit the parts together and control the process. Four reference holes on the body determine exact positions in both the body and assembly shops. The trim and final shop at Diamond Star is the most automated of all the Japanese transplants, with a total of 106 robots of which only 5 were equipped with a vision system. Many robots are located directly on the line, next to manual operations. According to our host (a Chrysler manager), much of the equipment was unnecessarily complex and expensive, and the robots were not always reliable in high-speed operations. Despite the investments in automation, manual work predominated also in the final assembly of the DMS plant. It seemed to be

as stressful there as in the other transplants, with long sections of overhead manual work that was not ergonomically adaptable and a narrow car body that made work inside the compartment very uncomfortable.

6.2. Employment Policies and Work Organization

As at all new auto plants in the United States, many people applied for work at DMS, 80,000 for just over 2,000 jobs. A firm was hired to do the initial screening, basic intelligence and dexterity tests, evaluation of aptitude for work in a group and a check on drug abuse. Just to participate in these tests, applicants had to make three separate trips to the testing firm. Those who passed this hurdle were closely interviewed by managers at DMS, who were involved in the selection process only after the number of applicants was substantially reduced. Employment started with 10 days of "orientation and indoctrination", to quote our host from the Chrysler Task Force. During the first three months applicants worked on a trial basis, and only after that the permanent employees were selected.

There were five levels in the organization: production team, group leader, branch manager, shop manager, plant manager. Process engineers organized procurement and equipment development, but there were no industrial engineers to balance the lines, conduct time-and-motion studies, etc. This was done by the first-line managers, the group leaders, who played a very central role. To the outsider management stresses the importance of team organization. According to the union, however, its practical relevance is minor as team leaders continuously have to work on the lines because of the staff shortages. This has made it impossible to rotate the task of leader in the team, which allegedly was the original intent. As at other transplants, demands for "no-fault attendance" are stringent, and the uniform is mandatory. As at Mazda, one of the union's struggles was over workers' desire not to have to wear caps.

6.3. An Increasingly Critical Union

Collaboration with Chrysler meant that Mitsubishi, like Suzuki at CAMI, had to accept union presence at the plant. In a short time the new UAW local was well organized, and in April 1990 it started publishing an informative and often very critical membership newsletter, *Union Spirit*. Any expression of a new harmony (*wa*) of the type often ascribed to Japanese plants was difficult to trace when we interviewed two of the union's leaders, Don Shelby and Terry Bolte. In August 1989 the first contract with the company was signed. During the following year, workers submitted nearly 500 complaints about contract violations. Such grie-

vances either led to a settlement or would go for external arbitration, a process that could take several years. The contract was written in vague terms and gave the company great freedom to use the work force as it sees fit, in contrast to traditional UAW contracts. Don Shelby and Terry Bolte explained this as follows:

Last year, when we were negotiating the first contract, people told us not to be intransigent. The main thing was the jobs and the employment security. They wanted to believe in the company, just as we did. Today the attitude is altogether different. People do not trust the company any more, even if they tell the truth.

According to the chairman, a constant staff shortage and constant demands for overtime and extra effort have been the most serious bones of contention. Personnel shortages in this most highly automated transplant appear paradoxical, but not to Japanese management and its rationalization policies. The 1989 contract gives the company the right to demand two hours' overtime per day, but the contract also stated that management should give employees one day's advance warning if possible. According to Don Shelby and Terry Bolte, however, orders for overtime were generally given on the same day, often only half-an-hour before the normal working shift was due to end. This created great uncertainty for the employees:

They talk a lot of flexibility, but it is a one way street. It is always the workers who are supposed to be flexible, never the company.

Sometimes the company persuaded workers to work double shifts, i.e., two shifts in a row, in order to reach production targets without increasing the number of employees. In late 1990, management announced that 100 new employees would be hired, which the union regarded as a victory. This did not reduce other kinds of complaints, however. Skilled trades workers in particular were angered by the company's efforts to keep the maintenance employees at a minimal level by contracting out work. DMS had only about 200 maintenance workers, a surprisingly low figure considering the amount of complicated equipment. Skilled workers perceived the outcontracting as a means of using cheap, unorganized labour to perform bargaining unit work without having to hire more trades people or upgrade production employees.

The company's stringent attendance programme was also on the union's list of constantly recurring problems. A system of warnings was used which led to a successively growing number of minus points. When in the 5.0–5.5 range an employee is at risk; 6 points means dismissal. According to the union the company accepted virtually no excuses. If, for

example, a man worked a double shift and then arrived late for his ordinary shift, he got a warning. The same happened if an employee went into hospital on a weekend and remained there on Monday without informing the company.

In November 1990, after less than two years in operation, 50–60 employees were in the risk zone, and some had already been fired. The company had tried to dismiss more, but the union had managed to negotiate their re-employment. Over 200 grievances dealing with the company's policy of demanding no-fault attendance were reported during the fall of 1990 alone.

Don Shelby and Terry Bolte also thought general ergonomic issues – uncomfortable working postures, risks of injury and cumulative trauma disorder – were likely to become an increasingly important problem which would probably be taken up in the next contract negotiations in 1992. At the time of our visit the number of worker compensation claims for injuries and accidents at the factory was about the same as for the industry as a whole. Considering the young age and careful selection of the work force, this figure appears to be high. The company has invested large sums in advanced technology, while investments in ergonomic measures have been remarkably modest.

Union experiences with the Japanese system of management and plant operation at Diamond Star were very similar to what we found at Mazda: staff shortages, orders to work overtime on short notice, relentless demands on attendance. Mazda established itself in a traditional auto region. The development of a strong union consciousness there, despite the company's careful screening process, can hardly be surprising. What was unexpected was the speed with which it developed. DMS in Normal is, however, on a greenfield site and has a considerably higher level of technology. It is remarkable that its union experiences are so similar to Mazda's, and that both differ so drastically from the usual impression people have of Japanese companies' harmonious and progressive conditions of work.

7. CAMI – JAPANESE MANAGEMENT MEETS THE CANADIAN UNION CULTURE

CAMI is a Canadian joint venture owned by Suzuki and GM, and located in Ingersoll, Ontario. As in other joint venture transplants, the Japanese provide the technology and products. In Japan, Suzuki belongs to the third division among auto makers, but is established as a specialist manufacturer of small cars and four-wheel-drive sport utilities. CAMI pro-

duces a subcompact automobile and a sport utility, which are sold through General Motors and Suzuki's different outlets. In 1986, GM and Suzuki signed the contract, and three years later production started. For GM the CAMI operation is a strategic learning experience in cost-effective small car manufacturing, flexible assembly, team organization and the management of employee suggestion programmes, which have been very successful at CAMI. In the end of 1990 CAMI added a second shift. By that time the plant employed 1,700 workers, of whom only 85 were in skilled trades. This is a very small number, considering the advanced technology in the body and press shops. Like other joint venture transplants, the CAMI plant is unionized. The Canadian Autoworkers Union, CAW, has a reputation for militancy. Thus it was of particular interest during our visit to CAMI to see whether employment policies, plant management and the local contract differed significantly from those at U.S. transplants.

7.1. Organization in Teams

Throughout the plant workers were organized into about 200 teams. Management appointed the team leaders. Foremen and team leaders were responsible for gathering employees to reassign work when the pace increased. In the team areas, there were reviews of each member's competence in various tasks, improvement suggestion statistics for each individual (there was an informal quota of five per month) as well as attendance sheets in which each individual was listed. The target was perfect attendance. Not all the teams filled in these attendance sheets. In a handbook received by all union members, the union adopted a disapproving attitude towards public display of individual attendance statistics.

When the plant started production in 1989 it was easy to recruit and select the 1,100 workers needed. The recruitment of the second shift turned out to be more difficult. Rumors of the extensive screening process had led to negative reactions, so the company was forced to employ some people it had rejected in the first instance. New employees got a four-day introduction with a review of the CAMI system, *kaizen*, etc. The rest of their training occurred on the job. The work pace was rapid, particularly in the assembly shop, and the company demanded total concentration on the work. In line with this, CAMI managers had tried to prohibit all personal reading matter. This rule was modified in late 1990. The company allowed personal reading materials in the recreation areas but not at the work stations. Management insisted on the uniform. One of the early labour conflicts concerned the mandatory cap, an issue on which man-

agement was finally forced to back down, as had happened at Mazda. At the time of our visit, there was a conflict about the prohibition of wearing personal tokens on the uniforms. Two workers had put a flower pin (a poppy) on their uniforms to celebrate Remembrance Day, the anniversary of the signing of the cease-fire treaty that ended the First World War. On this day, people wear these pins all over Canada, in stores, ticket offices, etc. The company sent these two workers home immediately but the union forced it to back down. This result was bad publicity for CAMI.

7.2. Central Union Issues: Staffing and Overtime

The union at CAMI, CAW Local 88, is young, and, like the corresponding DMS Local, it has rapidly built up a wide range of activities. To emphasize the new team spirit, CAMI wanted the union to share an office with the company's Labor Relations Department. During our visit one desk was still there, which the company used to show visitors, according to Brian Clarke, the skilled trades representative. The real union work, however, had moved to another office, called the CAW Work Centre.

Understaffing and overtime regulation were among the most important union concerns during 1990. The union wanted to have a regular overtime schedule while the company continued to change the overtime assignments at short notice, often on a daily basis. The problem of understaffing was on the union's agenda from the beginning. To emphasize its seriousness, the union encouraged employees to really use the *andon* system, particularly the red cords that stop the conveyor belts. Another reason for dissatisfaction was the company's stringent attendance policy.

The physical work environment at CAMI was probably the best of those at any of the transplants, despite the deficiencies of the assembly shop. The high-tech, low-noise press shop was particularly impressive. Otherwise the management system, personnel policies and operation of the plant were of exactly the same kind as those of the transplants in the United States. Why, then, were the Canadian auto workers not more successful in affecting their conditions of employment and in winning a stronger contract than the UAW at Diamond Star, for example? The following background emerged at a seminar at the CAW office in Toronto: The agreement was signed as early as 1986. Suzuki made tough demands for a flexible contract. CAW had been formed the previous year and had a reputation for militancy that the leadership wanted to tone down. The union preferred to come in and build up a local organization and to improve the contract gradually. Historical experience in Canada has shown that the first contract at a newly organized workplace is often thin, but can be developed subsequently. This approach is similar to what the UAW

has been able to do at Mazda. Further, when the contract was drafted, Canadian experience of Japanese management was limited. Some time later CAW adopted a Statement on the Reorganization of Work that is very critical of the Japanese management system. CAW at CAMI has sent a copy of this document to all its members. Local 88 has the objective of improving the contract considerably when the next series of negotiations take place in 1992. Among other things the union wants a more democratic team organization with the opportunity for team members to replace team leaders in whom they have no confidence.

In early 1990, CAW started a research project at CAMI, with the goal of documenting the plant over two years. Every six months the researchers interview a panel consisting of a large number of workers, team leaders and skilled trades people. This project will provide unique information on how conditions of work and attitudes to management and organization develop once the "honeymoon" is over. The two first field studies were reported to a colloquium in Quebec in 1991 (see Huxley and Wareham 1991). On the one hand, the researchers found a consistently high level of participation in suggestion schemes (71% of the respondents in the second study) and a majority of workers supporting QC activities. On the other hand there was a deeply ambiguous assessment of the team concept. Workers appreciated the social qualities, but in the second round 41% of the interviewees thought teams were a way to get people to pressure one another, up from only 19% in the first field study. Also in the second round of observation, the research team discerned a growing overall disillusionment with CAMI philosophy: 78% of the interviewed workers argued that CAMI's "team plant" was a place where management still had all the power.

8. "YOU DON'T NEED A UNION TO GO BACKWARDS": TRANSPLANTS AND UNION ATTITUDES IN THE U.S. AND CANADA

When Japanese companies began setting up in business in the U.S. in the early 1980s they worried about the American work force and the unions. They encountered an auto workers' union in decline, however, struggling with concession demands and lacking a cohesive strategy for the future. For the UAW, among the strongest of American unions, the decline had already begun in the 1970s when the auto industry began to farm out component manufacturing to non-unionized southern states. During the 1980s union density in the component sector fell from 50 to 20 percent. The really heavy blow came with the deep recession in the early 1980s.

At the end of the 1970s, the UAW had over 1.5 million members. Ten years later, the number had dropped to just over 900,000. In the past, negotiations had concentrated on which improvements companies would accept. During the crisis, under great pressure to give up some of the benefits won over the years, the union was forced to engage in concession bargaining. This process seriously undermined auto workers' union consciousness and weakened the general desire to join the union. To quote Sam Gindin, research director at CAW, which refused to accept this strategy: "You don't need a union to go backwards". Concession bargaining also led to internal factions in the UAW. Action taken by union leaders against their opponents and the union's increasing bureaucratization reduced its will and ability to mobilize members, who were already weakened by the crisis.

UAW – Centrally Resigned, Locally Militant

The UAW in 1990 was a union pressed in on all sides and without a clear policy for dealing with transplants. Further, it did not appear to have a cohesive strategy for organizing the growing non-unionized sector. The UAW's research department in Detroit had very limited contacts with union locals and no analysis of the consequences of the transplants' policies on the employment conditions of American auto workers. This passivity at the national level contrasted sharply with the lively activity and critical analysis we encountered at the local branches in Flat Rock and Normal. These were very isolated, however. At the time of our visits, the unions at Mazda and Diamond Star had never met one another. The local organizations, the real pioneers, got no support from the national headquarters in transforming their experiences into a strategy that might strengthen members' rights on issues like the regulation of overtime, attendance discipline, freedom at the workplace and a more democratic organization of work. Not waiting for central initiatives, the unions at Mazda, CAMI and Diamond Star started to develop direct horizontal contacts during 1991. The auto workers in Ingersoll and Normal were eager to learn from the experiences in Flat Rock when preparing for contract negotiations due to take place in 1992.

In the meantime, the UAW continued to hail NUMMI as a model for the future. This policy of meeting the Japanese with concessions, and avoiding an independent analysis and strategy *vis-à-vis* the transplants so as not to aggravate the companies, has created two fundamental problems for the UAW. First, it impairs the basis for unionization in general. Nissan exploited this cleverly during the campaign in 1989: Why should you pay union dues if there are no important differences? Second, it

widens the rift that occurred in the union after the first round of concession bargaining. Union mobilization at Mazda, which started in 1988, was directed not only at management but with great bitterness also at the UAW and its official policy. The splits at local and regional levels have further weakened efforts to organize new workplaces.

CAW – Centrally Critical, Locally Compromising

In 1985, after several years of opposition to concession bargaining, the CAW broke away from the UAW. In 1982, for example, the Canadians went on strike for better working conditions at Chrysler, which was seriously affected by the crisis, despite persuasive UAW attempts to dissuade the Canadian union from taking this action.

In Canada legal conditions for the labour movement are generally more favourable than in the U.S. The union density is twice as high (33 percent, as opposed to 18 percent). There is a fairly strong labour party (NDP) that won the 1990 elections in the most heavily populated province, Ontario. Considerably more social welfare policies exist, most notably a system of public health insurance. At the national level, CAW has been extremely critical of the Japanese system of management for example, a document adopted in 1989 contains formulations such as:

We reject the use of Japanese Production Methods which rigidly establish work standards and standard operations thereby limiting worker autonomy and discretion on the job.

We reject the use of techniques such as Kaizen (pressure for continuous 'improvement') where the result is speed-up, work intensification and more stressful jobs.

At the local level, as we have seen, the management system and labour relation policies at CAMI are generally similar to those at the transplants in the U.S. Sam Gindin, Head of the Research Department at CAW, pointed out, however, that the context is fundamentally different:

The UAW regards NUMMI as exemplary and combats its critics. For us CAMI is a compromise, which we must improve. At NUMMI Toyota's inflexible attendance policy is regulated in the contract. The UAW cannot defend its members but has to run around to explain how important a perfect attendance record is. At CAMI, on the other hand, attendance policy is a company rule and CAW can demand negotiations and in the final analysis file a grievance when management takes disciplinary measures. The local organization is part of a lively union structure, is criticized and learns from others, in that way building up positions for contract bargaining in 1992.

9. CONCLUSION: THE NEED FOR A POST-LEAN STRATEGY

According to *The Machine That Changed the World* (Womack et al. 1990), Japanese or "lean production" is a blessing for everyone, resulting in great strides in productivity and quality as well as vastly superior working conditions compared to the "Fordist" model. A recent study of North American transplants (Florida and Kenney 1991) puts forward the same view of lean production as an unequivocally beneficial system. Our conclusion is less comforting. Lean production dissolves a number of the Fordist rigidities, but replaces them with new strains. The result is a deeply contradictory set of working conditions in the transplants. On the one hand, American workers find a number of advantages:

1. Transplants offer substantially more job security than American companies. During the recession which started in 1991 they went to great lengths to avoid lay-offs.
2. Their profile is significantly more egalitarian than traditional American plants with their conspicuous difference between white- and blue-collar workers.
3. The quality of the products is a central issue. Thus many of the workers feel justly proud of the achievements of their workplace. Management appreciates workers' proposals for improvements, even if it is interested primarily in suggestions to improve efficiency.
4. They select personnel with great care and with a heavy emphasis on team-based problem-solving. Those who pass the screening process feel proud of themselves and find it easy to cooperate. At the Mazda plant in Flat Rock, employees regarded the high quality of the work force as one of the most positive features of the work.

These positive aspects contrast with "the other side of the sword", the relentless demands of a minimally staffed production system:

1. There is no regulation of work intensity. With the help of *kaizen* all slack is constantly eliminated. The object is both to utilize the work force to one hundred percent and to foster the "will to further *kaizen*". According to this view, if the workers are occasionally able to read a magazine at work, the motive force to continually make proposals for improvements is destroyed.
2. There are excessive demands for overtime work (except for recession times), often ordered at very short notice. In a fundamental sense, lean production is not free of buffers. Management uses its

far-reaching discretion to determine working hours to reach production quotas irrespective of what happens during the day or on the shift. Regulated and shortened working hours are part of the classical Western reform tradition, especially in Europe. This is irreconcilable with orthodox lean production.

3. Japanese plants stress the importance of safety, to avoid accidents that can interrupt production. The intense pace and repetitiveness and the long working hours nevertheless lead to significant health risks, above all problems of repeat or cumulative trauma disorders (CTD). There is very little tolerance of such injuries. At Honda's engine plant in Anna, management did not admit that this was a problem in any way related to conditions of production, but maintained it was entirely dependent on individuals. "There are weak and strong people. And there are right and wrong attitudes."

4. By eliminating buffers, lean production increases management's dependence on employees and their contribution. This dependence on the work force is more than compensated for by the radically stringent factory regulation, reflected in mandatory uniforms, exacting attendance demands, detailed codes of conduct and discipline, and the elimination of all personal attributes. In several transplants, teams resembled platoons much more than the empowered shop floor groups associated with teamwork in the West.

The Japanese auto companies have set new standards for productivity, quality and rapid product development in modern mass production. The North American transplants have been remarkably successful in transferring their basic management principles to a non-supportive environment, so far with a minimum of adaptation. With an American auto industry in a permanent state of retreat, they seem to be invincible. Nevertheless, transplants do not represent "best practice" in all fields. They have changed the American environment, but they will also have to adapt and modify their own principles, especially when confronted with mobilized union workers. This process has already started. For European unions it is urgent to develop a strategy for "post-lean production", with a more democratic team organization and less rigid forms of work and performance demands. In this process they have much to learn from the American transplant experience and from the union locals striving to humanize Japanese management principles.

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SUBCONTRACTING AND RATIONALIZATION

SYSTEMIC RATIONALIZATION, SUBCONTRACTING STRATEGIES AND THEIR IMPACT ON LABOUR IN THE FEDERAL REPUBLIC OF GERMANY

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ABSTRACT

This paper examines developments in the subcontracting system of the German automobile industry which signify a fundamental transformation in industrial production. In the attempt to achieve new forms of flexible mass production, strategies for reducing in-house production and new forms of integrated production and profit formation along production chains play a central role. Through the new relationships that arise between buyers and suppliers, the company areas of research and development, logistics, and quality assurance acquire strategic importance because it is in these areas that processes for increasing productivity and exploiting productivity gains take place. This results in a new relation of autonomy and control between buyers and suppliers.

In spite of the clear differences to the Japanese supplier industry, signs of a hierarchization or pyramidization in the German supplier industry cannot be ignored. This results in ambiguous effects for the employees in the supplier industry: Segmentation and polarization characterize the development of work requirements and working conditions.

CONTENTS

1. Towards flexible mass production
 2. New strategies of integrated production and profit formation along the production chain
 3. Autonomy and control between buyers and subcontractors
 - 3.1. Research and development
 - 3.2. Logistics
 - 3.3. Quality assurance
 4. The effects of systemic rationalization on industrial structure: hierarchization and pyramidization
 5. The changing role of labour in the process of systemic rationalization
 6. Segmentation and polarization: Ambiguous perspectives for workers
- Bibliography

1. TOWARDS FLEXIBLE MASS PRODUCTION

This chapter deals with the change in subcontracting strategies in the Federal Republic of Germany (FRG). It is mainly based on empirical studies of rationalization processes in the automobile industry and its subcontractors which we have conducted at the Institute for Social Research (ISF), Munich, during the past few years.

My deliberations will not centre on giving a detailed description of specific changes in the German subcontracting system. Rather I shall endeavour to point out general trends against the background of more extensive changes in the methods of industrial production.

The assumption that forms of industrial production have been undergoing a process of transformation in capitalistic industrial nations since the beginning of the eighties is now widely accepted and serves as my point of departure. Against the background of shifting market structures, traditional Tayloristic-Fordistic methods of production have arrived at a crisis worldwide – they are no longer in a position to respond economically to increased pressure to enhance flexibility.

We have used the term “systemic rationalization” to express the new strategies which attempt to resolve the contradiction between flexibilization and cost reduction. Norbert Altmann gave a brief outline of the concept of systemic rationalization in his chapter and the new forms of production associated with it.

Systemic rationalization is characterized in our conceptual framework mainly by its double effect: The various company functions and the individual processes of production and service within a company are reorganized under objectives drawn up for the company as a whole; among other things this entails the incorporation and/or externalization of specific production areas and company functions. The structures of the traditional division of labour between individual companies change and so do, therefore, the forms of their reciprocal relationships. Viewed from the perspective of the individual company, the two factors of systemic rationalization form a unity. They are an expression of an extension and reorientation of the production of surplus value in which attention turns to the material integration of product lines and production chains in the value added chain. The conflict between flexibilization and cost reduction, which cannot be resolved in the company by means of conventional technology and organization, appears to be more manageable through the reorganization of supra-company relationships of production and through the employment of new manufacturing and control technologies.

Systemic rationalization does not lead to the abolition of mass production but to new forms of flexible mass production. It is not a question, therefore, of the "end of mass production" but of its reorganization; the new dominant principle is not that of flexible specialization but of flexible standardization. However, this process of transformation is not limited to the traditional area of mass production. Inter-company restructuring has an influence in particular on the relationship between large-scale companies and medium-sized industry, i.e. on relations to the many independent small and medium-sized companies which play a central role in certain sectors of German industry. This means that companies with classic small series production ranges are also integrated in supra-company production networks and so are affected by systemic rationalization strategies.

In companies such as those in the automobile industry – but not only there¹ – which are confronted by complex and contradictory demands (high degree of technology-induced dynamism, wide range of models and large number of variants, increased complexity of products to be manufactured and simultaneously rising pressure on costs), strategies for reducing in-house production and for bringing about a fundamental restructuring of the inter-company relationships of exchange take on particular importance as factors of systemic rationalization.

In the following section I shall use the example of the restructuring of buyer-subcontractor relationships in the German automobile industry to show the extent to which inter-company strategies of systemic rationalization are already taking effect and which new forms of integrated production and profit formation are taking shape along production chains and value added chains. My intention is to show the course this process of transformation takes, i.e. which mechanisms control it and which societal effects it has. Here the focus of attention will be the structural consequences for workers.

Similarly I shall not draw any comparisons with developments in other countries. Instead I shall try, in my analysis of the German automobile industry, to define those structural factors of the changed strategies of capitalistic production which we consider generalizable across national boundaries, in the sense of a structural convergence as formulated by Norbert Altmann in his introduction.

¹ In studies we have conducted in other branches, e.g. in the German furniture industry, we have also discovered a trend toward intra-company rationalization (Deiß et al. 1989; Döhl et al. 1989).

2. NEW STRATEGIES OF INTEGRATED PRODUCTION AND PROFIT FORMATION ALONG THE PRODUCTION CHAIN

In Germany, as elsewhere, there are signs of a change of strategy in buyer-subcontractor relationships (Sydow 1991). In the middle of the eighties Piore and Sabel (1984: 230) noted that: "West German firms are decentralizing internally, instead of dissolving into their supplier networks (the limiting case in Italy) or functioning as assemblers of customized components (the limiting case in Japan)". Today, however, there are unmistakable trends toward a fundamental restructuring of the subcontracting system.

The empirical indicators have prompted various visions of the course of future development – many interpret the combination of trends toward decentralization and the increasing use of computer technologies as the start of a general break-up of large hierarchically structured company complexes and as the further assertion of market economy principles.

The quantitative side of this development is for the most part undisputed. Figures for the decrease in in-house production and for the growth rates in important sectors of the subcontracting industry in Germany prove this. What is disputed in the German discussion is the qualitative side of the change. What are the reasons for a decrease of in-house production? What is the essence of the new relations between buyers and subcontractors? Are the general trends toward decentralization and the decrease of in-house production linked with any new cooperative buyer strategies that at the same time are safeguarding or even increasing subcontractor autonomy and which are leading to relationships based on partnership? Or – yet another position – are subcontractors becoming more and more dependent economically on buyers and is increasing information technology-based integration intensifying the control imposed by powerful buyers?

Several reasons for a decrease in in-house production are offered in the current debate. Some say, for example, that the externalization of production processes cuts costs. Others point out that such moves are undertaken mainly in order to increase market flexibility and to enable the costs of higher quantitative and qualitative flexibility to be passed on to subcontractors. And, finally, a third group argues that subcontractors have a high level of product- and production-related know-how at their disposal and so are more likely to be capable of cost-effective manufacturing. The gist of all the different lines of argument is, therefore, that the decrease in in-house production in large companies permits them to lower their production, development and transaction costs. No consideration is given as a rule to the fact that companies which reduce their in-house production

are also relinquishing some of the value-added levels that used to represent an important basis for their own creation of profit.

Basically it can be assumed that companies do not reduce their in-house production if their own profitability decreases; on the contrary, they will take this step in an effort to ensure that their profitability is restored or improved.

The point is to exploit the company's own market position in utilizing up- and downstream production stages so as to acquire gains in productivity via the processes of market mediated exchange not arising within the company itself. The strategy in question is not that of "profit transfer" in the sense of a zero sum game, because a traditional market-induced relationship of control between buyers and subcontractors would suffice for this. Rather it is a strategy aimed at an all-round increase of productivity in internal and external areas of the company and at the distribution of productivity gains thus achieved.

This appears to have been overlooked by the authors of the MIT study (Womack et al. 1990). In their search for the intrinsic characteristics of lean production they limited themselves – at least in Germany – to factual characteristics (and even there very superficially), instead of considering underlying strategies. Changes in subcontracting relations are registered primarily on the level of the transfer of costs (e.g. storage costs) to subcontractors. There is hardly any mention of the more profound reorganization of subcontracting relations originating from the rationalization strategies of the automobile companies. Like many foreign scientists they have focused their attention above all on the large European subcontracting companies (e.g. Bosch in this volume) and their strategies. In doing so, they have not taken enough account of the active role of the automobile companies and of the relationship between large automobile companies and medium-sized subcontracting industries characteristic of the German subcontracting industry. Otherwise they could not have failed to notice that much of what is referred to as trend-setting in the coordination of the supply chain in lean production has long been practised in the German automobile subcontracting industry. Our empirical studies indicate, however, that this coordination does not usually take place in cooperative fashion and with mutual benefit, as is claimed to be the case in lean production. To be able to understand and explain the change of subcontracting relations it is crucial, as we see it, to proceed from the new rationalization strategies of the automobile companies. Only then will it be possible not just to analyze the strategies for decreasing in-house production on the cost and price level – which is what most attempts at an explanation do – but also to include the underlying reorganization of production structures and associated interests.

Decreasing in-house production by applying a strategy of all-round productivity enhancement in internal and external areas of a company seems to be possible only if, at the outset, the rationalization measures link the internal reorganization with influence over external processes. Precisely this is the essence of the double effect of systemic rationalization – profitability is obtained not only in the remaining internal areas of the company but especially so in those areas that are externalized.

What happens is that the subcontractors are not simply degraded to the function of extended workbenches but are conceded the right amount of autonomy necessary for them to organize their production processes to optimum effect. At the same time, however, the subcontractor's economic, technical and organizational dependence on the buyer must be shaped in such a way as to enable "profit transfer" in the sense of a "sharing" of productivity gains to proceed without appreciable losses due to conflicts. Later I shall consider in more detail the mechanisms by which this happens.

A new relationship of autonomy and control crystallizes: As much autonomy for the subcontractor to achieve maximum productivity, as much control to ensure maximum profit transfer. Such an ideal relationship between autonomy and control, from the buyer's point of view, does not arise from one day to the next. Some buyer companies seem to concentrate first on guaranteeing the profit transfer by applying rigid price pressure, in the manner of a zero sum game. Many subcontracting companies are unable to withstand the pressure. This greatly reduces the number of subcontractors and results in a market shake-out. Some buyer companies are already realizing, however, that price pressure alone is wasting considerable potential for productivity among subcontractors. Instead they are switching to using autonomy strategically by "supporting" subcontractors in their efforts to raise productivity. The purpose of such cooperative efforts – interpreted by many as a "partnership" – is to increase the extent of the productivity gains that can then be re-assimilated through a further intensification of price pressure.

Structures comparable to those in the relationship between control and autonomy are also developing in the subcontractors' relations with their sub-suppliers. The independence of the direct subcontractors in their relations to automobile companies is all the greater, the more successful they are at inducing their own sub-suppliers to increase productivity and at enabling a commensurate profit transfer. They, too, need to ensure the autonomy of their sub-suppliers to the extent that they remain on the market as a source of productivity gains. If the subcontractors manage in this way to pass the pressure from buyers further along the subcontracting chain, productivity gains will be transferred in reverse direction back to

the buyer through several value-added steps. The relationship between autonomy and control differs in form, however, on the various levels of the subcontracting process: budding cooperative structures are more likely to be found on the first subcontracting level, particularly in the relationship between the buyer and large innovative direct subcontractors, while those forms based on the application of rigid price pressure coupled with strong one-sided lines of dependence are more likely to occur on the lower subcontracting levels.

Systemic rationalization as a strategy of supra-company creation of surplus value is aimed at the optimization of production processes along the entire value-added chain. It is not content with a simple profit transfer from the small to the large companies via the medium-sized ones. Rather what is important is the assurance of an all-round increase of productivity along the entire production chain.

3. AUTONOMY AND CONTROL BETWEEN BUYERS AND SUBCONTRACTORS

"Somewhat between market and hierarchy" is one way to sum up the new forms of subcontracting in the current economic and sociological debate (cf. Semlinger 1991). Deriving mainly from the early work of Coase and Williamson, the discussion surrounding the theoretical and analytical explanation of the new subcontracting systems has broadened over the last few years. Yet although this discussion has brought to light a number of differentiations and new factors (e.g. make-or-buy decisions in companies) and produced more complete models (especially of the sociological exchange theories), there are still no satisfactory explanations available for the type of empirical developments we have found in our studies.

In many cases the models are also used as a theoretical and ideological basis for visions of development in market economies. Admittedly, categories such as conflict, power and dependence are indeed mentioned in the different approaches, but the picture of subcontracting relations remains predominantly harmonious and complies more with normative model concepts than with empirical reality. On the other hand, the empirical developments also provide sufficient grounds for contradictory interpretations:

Old concepts of the decentralized organization, e.g. the profit center, are being revived, internal and external entrepreneurialism is being promoted (e.g. management buy-outs), companies are being scaled down for the express purpose of achieving organizational flexibility (down-sizing), and various corporate function areas (research and development (R&D),

logistics, data processing, etc.) are being externalized in addition to production processes. Inefficiency and the poor flexibility of bureaucratic and hierarchical structures are mostly cited as the reasons for the market and market mechanisms acquiring more weight.

At the same time, however, there are other observed processes, namely the still increasing horizontal and vertical concentration of companies, the centralization of capital, the growing number of strategic alliances, joint ventures and "value-added partnerships", and the intensified trend toward subcontracting, contributing to the development of different forms of company networks.

Trends toward decentralization and more market conformity on the one hand are countered by trends toward company concentration and the organization of company groups in the form of networks on the other. Depending on the particular viewpoint or, to be more precise, on the particular scientific and political orientation, different trends in this contradictory relationship will be presented as dominant. As we see it, however, the crucial point is not to resolve this contradictory relationship in favour of one side or another, but to think of the contradictory trends as belonging together and being mutually necessary, i.e. as a new relationship between autonomy and control.

It is also crucial to study the relationship more closely in order to identify how the new forms of exchange and cooperation between companies actually function. I shall return, therefore, to the analysis of subcontracting relations in the German automobile industry and to the mechanisms by which the processes of productivity enhancement and the processes of exploiting productivity gains between buyers and subcontractors take place. As was previously mentioned, it is apparently not sufficient just to force dependent companies to implement rationalization measures through price and cost pressure. Within the relations built up between buyers and subcontractors strategic functional links and concrete technical and organizational integration develop whose content and form help to influence rationalization in the subcontracting companies.

Those company functions which become strategic interfaces between companies obtain central importance in this process. Our empirical studies indicate that the functional areas acquiring new strategic significance are research and development, quality assurance, and logistics. In these areas, in particular, there are fundamental (preliminary) decisions made regarding the requirements for cooperation between buyers and subcontractors.

Contrary to expectations that might be linked to a decrease in in-house production, the traditional key company functions in the buyer-subcontractor relationship, i.e. the buyer's purchasing department and the sub-

contractor's sales department, lose influence and must come to terms with increasing restrictions on their decision-making powers. The reason, it seems, is the growing significance of other criteria besides price – the most important selection criterion up until now – in the choice of a subcontractor and as points of reference in negotiations between companies. Aspects of price and cost continue to have a central bearing on the formation of buyer-subcontractor relations, of course, but they now make themselves felt in a different way: They are mediated through concrete material requirements such as quality, innovativeness, logistic reliability, etc. which, in turn, are monitored in corresponding company departments (e.g. the QA (quality assurance) department for subcontractor assessment). At the same time greater penetration in the control of all processes in terms of value and cost is improved; materials, technologies, methods of manufacture and processes of transportation etc. are subjected internally and externally to cost analyses and so become more transparent. This goes hand in hand with the development of central instruments and institutions of forecasting, calculation and control (value analysis, diverse controlling procedures, etc.). Consequently, the commercial functions central to market-based relations between companies seem to undergo an extensive change – they become mixed with concrete material functions on the one hand and merge with abstract general functions of analysis and control on the other hand. Even if purchasing continues to exist institutionally as an area of the company, its intrinsic function changes considerably.

With this in mind, the next section will concentrate above all on the functional areas of research and development, logistics, and quality assurance. In considering their reorganization, I shall discuss the new autonomy-and-control relationship between buyers and subcontractors. At certain points I shall also have a word to say about the changed role of purchasing.

3.1. Research and Development

The generation of new product and process technologies is becoming more important in all companies within the German automobile industry. True, these companies are pursuing different innovation strategies, but the need to manufacture products in less and less time and at lower and lower cost is adding to the importance of R&D departments in all companies. In order to be able to operate successfully on the market under conditions of shorter product life cycles, the traditional consecutive process of product development is being increasingly abandoned in German integration as elsewhere in favour of concurrent engineering (interlinking of process and product innovation). While this entails ensuring

close ties between R&D departments and other company departments, steps are also being taken to intensify cooperation with subcontractors at very early stages of product development. This also applies to relations with external development and engineering offices, the manufacturers of process technologies, etc.

Despite the considerable differences noted in the innovation strategies pursued by the automobile companies, they all have one thing in common: They want to secure and extend their technical know-how. Similarly it can be said that all automobile companies are determined not to remain or become dependent on supplier inputs with regards to fundamental (scientific and technical) developments which they consider to be of central importance for their specific product. An extension of in-house research is taking place, therefore, in the area of basic developments. In contrast, a trend toward a reduction of in-house development was noted in all the automobile companies we examined. Although the relocation of development costs and services is resulting in a reduction of in-house development in the automobile industry, it is possible to discern a widespread increase of in-house planning and control on the part of the automobile companies. Even if the subcontractor now carries out – and is expected to carry out – development work on a by and large autonomous basis, the buyer is usually quite well informed about the state of development. On the one hand, therefore, the autonomy of subcontractors is being reinforced by relying on the autonomous use of their innovative potential, with buyers restricting themselves to specifying only outline data with a bearing on development work. Still, buyers are not interested in losing, but in increasing their own control potential. They do this by developing computer-supported simulation techniques (particularly in the plastics area), by engaging in material engineering, by the extension of market analyses (even into unrelated sectors, e.g. ceramic materials), by self-production of prototypes, and by so-called procurement engineering.

There is an attempt to find ways to reduce dependence on the technological know-how and hence market power of the subcontractor for parts traditionally developed and/or produced externally, aspects of the company's development work delegated to outside firms, and company purchasing strategies oriented toward the buying of only "black boxes". On the market for electrical and electronic components, for example, it can be observed how the automobile companies are trying to close the technological gap to a large supplier by intensifying their own research and development at great expense in capital and manpower, while systematically building up competitors in order to free themselves from a relationship of one-sided dependence.

Conversely, subcontractors can strengthen their autonomy in relation to buyers if they are in a position to offer product innovations or are in exclusive possession of specific new manufacturing processes. Companies whose strength lies solely in quickly implementing process innovations needed for the cost-effective manufacture of new products are worse off in the long term than those subcontractors that are also capable of pushing product developments on their own. But here again, the situation has more than one dimension. In no way are the buyers trying to create "a second Bosch" when building up system suppliers meant to participate in product innovation. In particular it seems to be standard practice to begin by having several subcontractors work on the development of a specific component and then to select the one offering the buyer the lowest price under otherwise equal terms. The subcontractor's autonomy, increased through development of his innovative potential, is therefore limited by his restricted market power.

Our impression is that the automobile companies are becoming less and less willing to enter a relationship of dependence on subcontractors which results from the exclusive possession of a specific product or process know-how. Consequently, there are some sub-sectors in which the extent of in-house research as well as in-house development is being increased by an appreciable amount.

As a rule there are enough possibilities for buyer companies to ensure the exclusivity of their use of specific developments. Buyer companies have succeeded in particular in having large subcontractors as well as external development offices segment their development departments according to customer, so that the results of work performed for one company cannot be easily utilized by another. It is a reflection of the limited autonomy of even large subcontractors that the buyer companies have managed to enforce this requirement without any particular effort.

3.2. Logistics

The strategic relevance of the company function "logistics" is highly evident in the creation and expansion of central logistics departments in the German automobile companies. However, not all have reached the same stage of development as regards the rationalization of their logistics. In the automobile industry there are some companies, for example, that have only just finished installing their central logistics departments, while others are already starting to re-rationalize their reorganized logistics through the use of modern information and communication technologies ("reflexive rationalization of logistics").

As a rule radical rationalization of logistic procedures is only possible

when changing over from one model to another, so the relevance of central logistic departments will increase under conditions of accelerated model change in the future. Their creation and expansion are expressions of a fundamental change of function – the central factor is no longer the material distribution function pure and simple, but the contribution it makes to the strategic planning of general production processes. As such the development and reorganization of logistics is a factor in extending the planning horizon such as is typical for systemic rationalization strategies.

Internal company-related efforts to optimize logistic procedures have a direct effect on relations to the company's own subcontractors and far beyond. For example, the extent of in-house logistics in the automobile industry is generally on the decrease. Transport, storage and logistic planning services in nearly all companies within the German automobile industry are being shifted to external companies or to the subcontractors themselves. This means that to the greatest extent possible the costs of logistics are being passed on to the subcontractors either directly or indirectly via intermediary service companies. This is having a twofold effect: On the one hand, the logistics costs are going up at a disproportionate rate, i.e. in relation to the complete logistics chain. On the other hand, these costs can usually be lowered for the end user. It is not one of the buyer companies' primary aims, however, to pass on logistics costs to their subcontractors. The important point rather is to increase their own organizational flexibility and – in the long run – to lower the logistics costs along the chain as a whole. New possibilities for greater transparency of the entire logistics chain are also resulting from the computerized connections with companies earlier in the chain. In any event, the buyers' new logistic strategies are forcing subcontractors to make their own costly adaptations which, in turn, extend far beyond the area of their logistics. After a phase of rising costs for subcontractors, the stiffer requirements imposed by buyers results in an improvement in the efficiency of logistic systems throughout the production chain.

New logistic concepts are often discussed in association with the term "just in time" (JIT). For now, however, JIT projects with synchronous manufacturing sequences are restricted to a comparatively small spectrum of parts and hence to a specific proportion of bought parts. Even if the trend continues to head toward just-in-time production, it appears to us – on the basis of our findings – that the predominant policy pursued by buyers in the German automobile industry is still to set up external or quasi-external warehouses. The advantage of these stores for the buyer is that they enable the decoupling of manufacturing processes performed by himself and his subcontractors, but still allow him to lower his manufacturing risks and logistic costs. At the same time they enable the subcontractor to

meet the higher requirements on flexibility imposed by the buyer but still allow him to organize his own manufacturing in batch sizes giving optimum economy. (This also applies, of course, for internal stores at the subcontractors.) External warehouses in the direct vicinity of the buyer companies have the additional side effect of compensating the locational disadvantages of foreign subcontractors. National subcontractors are thus helping to eliminate their own competitive advantages.

The rationalization of inter-company logistic relations serves, therefore, as a condition for the mutual reduction of the internal and external logistic costs of subcontractors and buyers. It can be used above all to meet the higher requirements on flexibilization without having to fully relinquish the successful processes for the utilization of economies of scale. It is highly functional for "flexible mass production", and not only on the buyer-company level.

The decrease of in-house logistics corresponds to an increase in in-house planning and control, on the level of logistic relations as well. The influence of the buyer's material planning and procurement is increased distinctly, not at the exclusion of the subcontractor's autonomy, but through the very use of the autonomy of the subcontractor or intermediary transport companies. Basically speaking, the advanced state of technical and organizational integration provides the buyer with all the means required to obtain information about all the internal logistic procedures of his subcontractors. This potential – which undoubtedly exists – for the comprehensive control of upstream producers has not been widely used so far.

One of the central aspects of systemic rationalization strategies is the fact that the rationalization of a sub-sector of the company is not undertaken simply for the purpose of optimizing it. The rationalization of inter-company and intra-company logistic systems also has repercussions far beyond the direct area of logistics. For example, logistic aspects are receiving more and more consideration in product development. Subcontractors as well as buyer companies are interested, for instance, in delaying the differentiation of variants as long as possible in the design and production process so as to keep the consequences of the exploding numbers of variants in check. The creation of product families for the purpose of enabling flexible mass production also assumes that logistic aspects receive advance consideration in the design process. For us the most important point, however, is that the buyer companies are not intent on transferring logistic costs but on reducing them altogether. The transfer of logistic costs, which indeed takes place, is evidently the means by which subcontractors are forced into carrying out an "autonomous" self-controlled optimization of their logistics and hence into lowering their logistic costs.

3.3. Quality Assurance

Questions of quality or production quality, and hence quality assurance have been receiving more attention for a number of years in the German automobile industry thanks to technical and organizational changes in manufacturing as well as to changed market requirements.

The transition to systemic rationalization results generally in a need for an integrative management of quality. Besides product quality, increasing requirements are placed on process quality (continuity, capacity level, flexibility) to the extent that rationalization efforts are redirected at cost reduction and synchronization of the entire production flow.

Highly complex products and highly automated plants do not permit any errors or tolerances in the various components of a product (e.g. electronic systems) and in parts intended for further processing. Faulty parts lead to costly down-times; function faults in a product bring the vehicle to a halt. The implementation of new logistic concepts in automobile companies is also aimed at as trouble-free a production flow as possible and assumes basically that purchased and self-manufactured parts display "zero defect".

A key characteristic of the new quality assurance strategies is that they are applied earlier in the development process as well as in a product's manufacturing process, with subcontractors involved to a high degree. Far more than ever before, quality assurance becomes a pivotal function comprising many other functions within, and beyond, the company. All the automobile companies we surveyed were interested, for example, in reducing the incoming inspection for purchased parts to what is (still) required legally. This means that the subcontractor has to shoulder responsibility for the quality of parts he has produced.

The trend toward advancing the timing of quality assurance functions corresponds to a trend toward the general abstractification of quality assurance tasks. Tests are no longer carried out on the individual product but on the process in which it is designed and produced (design and process FMEA (failure mode and effects analysis)). Instead of conducting checks on the real results, processes are analyzed for their error and problem potential. Wherever possible, therefore, personal quality inspection is being cut back and, in return, computer-supported quality assurance in accordance with statistical and hence objectivized rules is being encouraged (statistical process control (SPC), computer aided quality assurance (CAQ)). An accelerated pace of development in the inspection and sensor system field is also enabling, not only a growing proportion of mechanical quality assurance, but also the switch-over from specific gauges for each part to universal measuring and inspection machines.

What significance does this have for the buyer's relationship with his subcontractor? On the one hand, the subcontractor is supposed to meet the quality standards set by the automobile industry. On the other hand, control of his efforts in this connection is not relinquished. On the contrary, all the automobile companies we surveyed have extended their service department to include highly trained staff that monitor the process reliability of their subcontractors. The buyer companies' interest is not so very much to have the subcontractor supply zero error quality; their efforts are directed rather at ensuring that the subcontractor produces quality. For this purpose programmes are created jointly with the subcontractor, obligating him to set up his engineering, organization and labour assignment in such a way as to enable his production process to run without disturbances. In this connection, too, the quality assurance work is not restricted solely to the area of direct production. The subcontractor's design and engineering departments are likewise analyzed for possible sources of defects. This form of cooperation generally illuminates all the subcontractor's processes, including his cost structure, for the buyer. At the same time, however, new rationalization potential is revealed for the subcontractor and he is shown new measures for increasing his productivity.

All the technical potential for enabling close ties between the subcontractor's quality assurance and the buyer is also not exploited in the question of quality. The transfer of quality assurance data from the subcontractor to the buyer is entirely possible but waived, not only because its evaluation would incur considerable cost for the buyer but because the buyer relies on the autonomy of his subcontractor in this connection, too. It is precisely in the higher demands on their subcontractors' quality assurance systems that buyers show that for them the autonomy of their subcontractors represents a "productive force" which they intend to make – controlled – use of.

Once again it is possible to discern a double strategy: On the one hand, some of the buyer's costs are transferred to the subcontractor by giving him responsibility for the delivery of zero defect parts; on the other hand, this is not accepted as being enough and efforts are made to guarantee an all-round increase of the subcontractor's productivity through a reduction of his quality costs and through a general improvement of his production methods.

The above described developments in the three strategic function areas have been generalized, of course, and would require some differentiation in several respects. Strategies on the buyer side take on a different form depending on whether the buyers are mass producers or the manufacturers of exclusive automobiles, on whether they have extensive inter-

nationalities, on the status held by global sourcing, and on how heavily the buyers still rely on the national subcontracting industry and so on. On the subcontractor side it would be necessary to differentiate according to market power, innovation potential, company size, status in the subcontracting chain and so on. Major differences also result from the branch or sub-sector to which the subcontractor belongs – foundries or forging companies are treated differently to plastics and electrical and electronics companies.

The following remarks concerning developments on subcontracting markets and their consequences for labour are also general.

4. THE EFFECTS OF SYSTEMIC RATIONALIZATION ON INDUSTRIAL STRUCTURE: HIERARCHIZATION AND PYRAMIDIZATION

The changes in relations between buyers and subcontractors in the German automobile industry described above have radical consequences for the structure of the subcontracting industries. These consequences have been described on various occasions – including by ourselves – in such key terms as falling numbers of first tier suppliers, the creation of so-called system suppliers, the trend toward single sourcing, internationalization, regionalization, etc. The culmination is a restructuring of subcontracting chains which, from the viewpoint of the final buyer is taking on more and more the structure of a segmented tree of logistically orientated relationships of delivery in conformance with the principle of modularization, i.e. the supply of pre-assembled components. Viewed from the aspect of dependence between the levels of buyer, direct supplier or system supplier and the various 2nd tier suppliers on the other hand, the new structure can also be described as a hierarchically organized pyramid.

This characterization of the German automobile subcontracting industry as a tree- or pyramid-shaped structure is inadequate for two reasons when applied to the branch as a whole. For one the picture creates the impression that companies grow smaller the closer they are to the beginning of the chain, with the respective consequences for relationships of dependence and organizational integration. True, this constellation is to be found in many cases, but the shape of the structure is often quite different, i.e. large and accordingly powerful companies are suppliers for small subcontractors that maintain the contact and close relations with the final buyer.

Moreover, the picture is valid only from the perspective of isolated final buyers, not from the perspective of the industry as a whole. Single sourcing is often assumed to be a procurement strategy already pursued by automobile manufacturers, yet this is true to a certain extent only, because for a number of reasons two or more suppliers are mostly being used for the same part; and the converse is certainly not valid, because subcontractors usually supply several automobile manufacturers. Furthermore, subcontractors often have a second pillar of business outside the automobile industry. Seen thus, the picture is no longer that of one-dimensional tree or pyramid structures; rather it takes on the structure of diversely intermeshed and overlapping supplier relations. Thus on the whole the automobile and subcontracting industry resembles a closely networked system which through incorporation of relationships of size and dependence is multi-layered and not one-dimensional in structure. In other words, it has several centres that are focal points for several surrounding networks – networks between which there is a diversity of further links.

It should be clear from just these indications of essential differentiations in the picture of a hierarchically structured and pyramid-shaped network that, contrary to what is often claimed, we are not confronted by simply the Japanization of the German subcontracting industry. Other characteristics of the German subcontracting system point likewise to distinct differences from Japanese conditions: Small and medium-sized industry is not at all as strong a structural factor in the German subcontracting system; the economic relationships of dependence are still distinctly inferior; it is not multi-layered, and despite the described technical and organizational forms of cooperation and dependence the market and price mechanism plays a different role than it does in the Japanese "cost control system". This is not the place for me to draw a comparison between the German and Japanese subcontracting system. In the light of our empirical studies it can be said, however, that the restructuring process in the German subcontracting industry really does show certain features which before now were always considered to be characteristic for the Japanese system. This refers less to the identification of directly comparable manifestations and applied instruments but more to equivalent structures and mechanisms that are different in form yet display similar structural effects. So it is impossible, for example, to overlook the clear signs of a hierarchy or new pyramid-forming in the German subcontracting industry.

At the top of the supplier-pyramid we find powerful system suppliers that benefit from the decreasing in-house production in the buyer companies. They are mainly characterized by a high level of innovativeness,

extensive know-how with regards to production processes, and great financial strength (often they are subsidiaries of large groups).

Below the companies on this first subcontracting level that fail to acquire the status of a system supplier, we find a large number of direct subcontractors, most of them suppliers of series products. As a rule the latter lack the system supplier's possibilities for passing on stiffer buyer requirements to their own subcontractors. Buyer companies are less inclined towards cooperation than to forms of control, however mediated in their relations with these companies. Companies of this type are often demoted from the level of direct subcontracting to the automobile industry onto the second level of subcontracting where they are then involved with system suppliers that pass on the pressure from the automobile industry to an intensified degree.

For some companies that are unable to keep up with the rising requirements, the process of restructuring in the German subcontracting industry will result in their disappearance from the market. For the time being, however, many of the mostly small and medium-sized companies will remain on the market but in a different position, i.e. they will move to an earlier link in the new logistic chain. This process will be intensified by the predatory competition among the remaining subcontractors and by the increasing concentration. Furthermore, it is acquiring additional momentum from the appearance of companies that formerly were not active in this market. They include companies that have been operating up until now in other branches (e.g. in the electrical and electronics industry) and which are establishing a foothold in the subcontracting industry by taking over commensurate subcontractors and equipping them with additional know-how, technology and capital.

At present the restructuring process in the German subcontracting industry is still in full swing. It will hardly be possible, however, to limit an analysis of future developments to Germany. The process of internationalization is already relatively far advanced, particularly in Europe, be it through international interdependence, through the international procurement strategies of buyer companies, or through the internationalization of subcontractors themselves through the establishment of branch factories in various countries. If we look on the subcontracting system as a form of company network now in the process of being established, the aspect of international integration is probably more important for future developments than the current trend in the subcontracting system toward regionalization.

I am unable to elaborate on this point here, although the trends toward internationalization are also becoming increasingly important in the consequences for labour the subject I will now, in conclusion, address.

5. THE CHANGING ROLE OF LABOUR IN THE PROCESS OF SYSTEMIC RATIONALIZATION

The question as to the impact on labour can be posed from two perspectives – first, there is the question as to the strategic function of labour in the process of systemic rationalization, and second, there is the question as to the consequences for workers in their companies, in our case those in the German automotive subcontracting industry in particular.

To answer the first question I shall elaborate on what I have already intimated in my short sketch of systemic rationalization. In one of the central theses in our concept of systemic rationalization we assume that attempts to attain flexibility in strategies of systemic rationalization are mainly being undertaken with the use of new technologies. Computer technologies are becoming the essential basis for the control and supervision of production operations covering more than one process and more than one company. Organization and control technologies in particular are becoming, as we see it, the decisive flexibility resource for reorganization beyond the boundaries of any one process or company. This is the resource to be used to overcome the rigidity of mass production and to solve the cost problems of small-scale production. Efforts to master flexibility are being channelled – according to our thesis – increasingly into the development of supra-company networks which permit a combination of the advantages of economies of scale with those of economies of scope.

As a result, the process of direct production and the labour involved lose their central status as a reference point for strategies of flexibilization. Labour stands outside of the direct production process whose flexibility is achieved through flexible automation technology and information technology based systems of organization and control. The potential for meeting the new requirements on flexibility lies less and less in the internal reorganization of the processes themselves, however, and more and more in the form and manner of their technology-supported integration both within and between companies. This also reduces the weight attached to the direct production process in meeting flexibility requirements in the overall process.

Labour's loss of strategic importance in the direct production process is offset by an increase in the importance of skilled labour² in those function areas that are significant for the technical flexibilization and the or-

² Skilled labour in the sense of the German skilled worker who is trained in a standardized program and receives a state recognized certificate in this occupational field.

ganizational configuration of the inter-company division of labour and which thus become a point of reference for strategies of systemic rationalization.

The functional areas in question are, on the one hand, those which precede or follow the direct production process and play a central role in the implementation of new organization and control technologies. As is known from many studies, friction in the process of implementing systemic rationalization – particularly when introducing information systems – is a major characteristic of the development. A key role falls to skilled labour during the planning, introduction and – sometimes – also in the protracted “running-in” phase. Of course, part of the skilled personnel is withdrawn again once the implementation is successfully completed, but skilled labour will still be required in the indirect function areas to prepare and control the production process.

Much of the discussion about the deployment of higher skilled workers concerns these groups of workers, although in quantitative terms they still make up a relatively small proportion of the total work force. One decisive point in the debate – and a by and large still open question – is the organizational restructuring of these functions. Is the trend heading toward an integration of functions in the production area with a commensurate deployment of skilled labour in the production area, or toward their intensified separation and integration in production-remote areas of planning and control, or possibly even toward their complete relocation out of the company, in which case these functions are then performed by external centres (e.g. manufacturing firms, engineering offices and so on).

A certain key role also falls to labour, on the other hand, in those areas of the company which are acquiring strategic importance within the company as interface functions between individual enterprises for the integration of sub-processes in a flexible overall system. As I mentioned earlier, these areas are principally the functional areas of logistics, quality assurance and research and development. New job structures and skill requirements in these areas must be seen in close connection with the new technologies of organization and control that are employed there and which as a systems technology represent the real basis for the control and supervision of operations covering more than one process and company.

Yet even if the lines of cooperation and communication between departments and companies are being maintained with more and more technical support, the workers in these areas are being asked to satisfy specific skill requirements of an increasingly extra-functional nature, i.e. requirements which address the worker’s personal characteristics such as willingness to cooperate, capacity for innovative action, etc. What kind of status these elements of skill will retain in the strategic interface func-

tions will depend not least on the direction of development finally taken by the already snowballing technology-based rationalization of operations in these areas. This in turn will have a great deal of influence on the question, whether labour will still be given a key role to play in the future, at least in the areas of logistics and quality assurance.

In the logistics area, for example, technology-based measures in logistic planning processes have already cut the higher staffing levels (there is a trend in particular to replacing simple logistic planning jobs with automatic procedures); similar trends are also evident in the introduction of CAQ systems and in the increasing use of complex technological systems for measurement and inspection.

Yet with all these indications of the new role of key workers in strategic areas of the company, it is still an open question as to where, at which point in the company and in which companies these functions are becoming established. It appears as if the debate about the significance of skilled labour and the status of specific key workers – be it the “*Systemregulierer*” in the “new production concepts” in the German discussion or the “problem solvers” in “lean production” in the international debate – is concentrated in specific core areas of industrial activity in large-scale companies, areas which in turn assume a focal role in production networks. What is disregarded by and large is the fact that in a complementary development labour structures are forming in other areas of the production chain in which only few companies are profiting from skilled labour’s increase in importance whereas most are tending rather to lose skilled jobs.

6. SEGMENTATION AND POLARIZATION: AMBIGUOUS PERSPECTIVES FOR WORKERS

From our empirical studies we are still not able to identify either a very clear or quantitatively significant picture of the consequences of rationalization processes and changed structures of subcontracting in the German automobile industry. It seems that the contradictory impact of the above described restructuring processes is causing the consequences for affected workers to be concealed, to appear segmented according to functional areas, and in many cases to manifest themselves in different internal and external areas of the company than expected. There is a great risk, therefore, of making premature and hence biased generalizations.

In the current German discussion we come across some appraisals which, in light of the subcontracting industry’s growing dependence, are predicting very negative consequences for the workers affected (job cuts,

dequalification, higher pressure to perform and similar). On the other hand, there are some authors (e.g. Sabel et al. 1991) who, focusing mainly on the trends toward decentralization and the new cooperative structures, anticipate that new production concepts will be implemented on a wide scale in the subcontracting industry, too, with at least partially positive consequences for workers (job security, requalification and the like).

In our studies we find evidence to support both appraisals. Generally this would seem to substantiate the assumption that reorganization measures in the automobile companies are resulting in a shift of negative after-effects into the production stages earlier in the chain. In most subcontracting companies you will find: employment risks, changed status of employment (fixed-term contracts of employment, temporary employment, etc.); changed structure of working time (more shift work and overtime, loss of autonomy in the timing of production operations); and greater pressure to perform. Differentiations are appropriate, however, with respect to the various subcontracting branches and especially with respect to the various stages of subcontracting. The process of pyramidization and hierarchization, which is being effected in the subcontracting industry according to stringent criteria of selection, is causing the buyer companies' new requirements to exert an influence on processes in the subcontracting companies and on the working conditions of their employees in many different ways.

It can be assumed, for example, that some of the large and innovative companies which successfully complete the process of adaptation will profit from their buyers' reorganization measures, including the consequences for workers. As the buyers' in-house production is being reduced, so the level and the status of employment in these subcontracting companies stabilize; furthermore, the reorganization of their own structures of production and organization leads in many cases to a rise in the level of qualification required, at least in certain sub-sectors. The expansion of capacities, e.g. by setting up new branch factories close to focal companies, could create new jobs; the performance of more development and design work and the expansion of quality assurance and logistics departments increases the proportion of skilled jobs; flexible automation in production and the partial relocation of quality assurance functions into the production area results in higher skill requirements for unskilled and semi-skilled workers. Working conditions are tending to resemble those in the buyer companies. Of course, this also applies to the negative effects of rationalization and flexibilization – trends toward a polarization of skills, higher pressure to perform, changed structures of working time, etc. will be found here, too. Particularly in those subcontracting companies (or their branch factories) that are closely integrated in the logistics chain

as direct suppliers, workers are experiencing an intensification – depending on the extent to which JIT principles are applied – of the familiar stresses resulting from close deadlines and rapid flexible adjustment to the buyer's production operations (hectic working conditions, overtime, extra shifts, transfers and similar).

The subcontractors most hit by a shift of the negative effects of reorganization measures implemented by the automobile companies will be those which are unable to survive the selection process, which become series suppliers or which are displaced into production stages earlier in the chain. The successful direct or first tier suppliers are likewise involved in this shifting of negative consequences, for they are passing the buyer's requirements on to their own suppliers by developing their own flexible production structures, perfected logistics systems and ambitious quality assurance instruments. The problem zones for labour are being shifted in this way to stages of production situated still earlier in the chain. A state of merciless cut-throat competition currently exists in Germany in this sector of non-specialised subcontracting and sub-subcontracting where a large number of the country's many small and medium-sized companies are to be found. The high proportion of unskilled and semi-skilled workers (which includes many women) in these companies are shouldering the biggest risk of the entire restructuring process in the German automotive subcontracting industry. Their jobs are insecure, their status of employment is in many cases marginal (e.g. fixed-term contracts of employment, temporary work), they are under high pressure of time and pressure to perform, as well as being subject to other stresses. In these companies there are only very limited training opportunities of the type sometimes found in other subcontracting companies due to the higher requirements on innovativeness, quality, logistic reliability and the accompanying high levels of technology.

This can be illustrated with a brief example of the way companies are responding to new quality requirements. In many small companies, additional quality assurance functions are not being integrated in the production area but are being transferred to specialized and highly skilled personnel. One of the reasons given for such a centralistic solution is that the semi-skilled machine operator's level of skills is not up to the new requirements. In spite of the great difficulties in recruiting highly skilled personnel on the labour market, the alternative approach, i.e. to train the semi-skilled worker, is rarely taken in this sector of small and medium-sized enterprises. Further training remains largely unsystematic and orientated to short-term requirements, and it is mostly limited to short courses of instruction. Longer-term further training at an external centre takes place, if at all, in the form of manufacturer training courses. Un-

skilled and semi-skilled workers, especially in the upper age brackets, are seldom involved. Capacity bottlenecks in the production department, the lack of a skill-related personnel policy, and a narrow cost-benefit philosophy are cited as the reasons for the insufficient involvement in further training (Mendius and Weimer 1991). In view of the limited possibilities for small companies to pursue their own further training policy, some hopes are being pinned at the moment in Germany on cooperation models, of which so far there are only very few examples.

The thesis of the shifting of labour problems from the buyer to the subcontractor calls for a further point of differentiation. In certain sub-sectors the automobile industry's decisions to extend its outsourcing of parts can also have a backfiring effect. The employment security of whole divisions in the buyer companies can be put at risk; the externalization of high-quality production processes can also have consequences for the level of skills. The same is true for the externalization of functions in the area of data processing or in service and maintenance. The introduction of preventive measures of quality assurance results in a drastic reduction in the relatively large number of staff in the bought parts inspection department, with the older semi-skilled workers affected most of all. For this group of workers in particular the opportunities on the labour market are rather hopeless considering the continuing picture of unemployment in the FRG and the extreme labour market situation in the former GDR. The same applies, for example, to the externalization of storage or other logistics functions. The reasons for the externalization can vary from case to case. For the logistics functions it seems that a major role is played by the lower labour costs and other collectively bargained settlements in the service sector (different unions) which put the workers at a disadvantage.

Admittedly, our present findings concerning the consequences of systemic rationalization for affected workers are still fragmentary. Generally it can be said, however, that every analysis of the development of labour must give due consideration to the processes of selection and hierarchization such as are found in the formation of inter-company networks in the automobile industry. The development of labour requirements and working conditions differs depending on the position of the respective company in the pyramidal structure of the networks. Statements concerning the general trends in labour development and which are orientated mainly to processes of change in large companies or so-called core sectors of industry cannot help but show just one side of the coin. They fail to cover the overall development with its lines of segmentation and polarization.

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DEVELOPMENT NETWORKS IN THE AUTOMOBILE INDUSTRY

NEW TRENDS

Ikeda Masayoshi

ABSTRACT

As Japanese automakers have worked to increase development speed and efficiency, the existence of a cooperative network consisting of parts manufacturers, other firms supporting development activities and subcontractors, has been of critical importance. The role played by these subsystems in product development by Japanese automakers is far greater than that of their counterparts in Europe and the United States. This report will investigate new developments in these networks during the past few years, with emphasis on the subsystems – the parts manufacturers, prototype subcontractors and other firms assisting development work which serve as a foundation for the industry.

CONTENTS

1. Introduction
 2. Set orders and the creation of system suppliers
 3. Product development and reorganization of the division of labour
 4. Externalization of the automobile prototype division
 5. Growth of firms assisting in development activities
 6. Summary
- Bibliography

1. INTRODUCTION

The Japanese industrial structure continues to undergo rapid changes in the wake of the strong Yen that resulted from the Plaza Agreement of 1985. The auto industry is a typical case. Between 1985 and 1990, Japanese exports dropped from 6.73 million to 5.83 million units, resulting in a temporary industrial recession known locally as the "endaka ('strong Yen') slump." During the same six-year period, however, domestic auto sales rose by 2.22 million units, from 5.56 million to 7.78 million, and by 1987 the industry had recovered from the recession and

was on the verge of a new boom period rooted in local demand rather than exports.

During the succeeding five years (1986–1990), the strong Yen became an established fixture. A total of 38 types of passenger vehicles were newly released on the market, and the Japanese auto industry entered an era characterized by new product development. By increasing the frequency of vehicle model changes and new car development, the automakers have succeeded in stimulating domestic demand.

According to studies conducted in the mid-1980s by Kim Clark, Fujimoto Takahiro and others in a Harvard research group (Fujimoto 1991), the product development capabilities of Japanese automakers exceed those of manufacturers in Europe and the United States by far. When product development capabilities at industries in the three regions were compared on the basis of development time and (non-hour) productivity, for example, the following results were obtained.

In Japan, an average of four years is needed to develop a new vehicle, while manufacturers in Europe and the United States require an average of five years. When development productivity is measured, the Japanese figure of 1.7 million hours compares to 3 million hours for the United States and Europe, a nearly two-fold difference. Thus the gap in competitiveness is even greater than that for development time. One of the main factors behind this discrepancy was the number of new vehicles released during the five years from 1982 to 1987; Japanese automakers introduced more than 70 new models while U.S. manufacturers released only about 20 and European firms about 40. As product diversity becomes the key to competitiveness in the auto industry, Japan's superiority on the global market is becoming increasingly apparent.

As Japanese automakers have worked to increase development speed and efficiency, the existence of a cooperative network consisting of parts manufacturers, other firms supporting development activities, and subcontractors, has been of critical importance. The role played by these subsystems in product development by Japanese automakers is far greater than that of their counterparts in Europe and the United States.

This report will investigate new developments in these networks during the past few years with an emphasis on the subsystems – the parts manufacturers, prototype subcontractors and other firms assisting development work – that serve as a foundation for the industry.

2. SET ORDERS AND THE CREATION OF SYSTEM SUPPLIERS

From an international point of view, one of the most obvious characteristics of the Japanese auto industry is the extremely high ratio of "approved-drawing components," a fact which leads many parts suppliers to participate in the development of specific new products from the early stages onward (Asanuma 1990: 20).

Most of Japan's primary component manufacturers developed in-house capabilities for detailed design, etc., during the parts group reorganizations which took place during the 1950s through to the 1970s. As a result, components based on designs developed by the parts manufacturer and submitted to the automaker for approval account for fully 70% of all parts procurement by Japanese automakers (Fujimoto 1991: 40).

In the United States, on the other hand, parts manufacturers traditionally tender bids on designs provided by the automakers. Parts procured in this fashion account for fully 80% of the total. Meanwhile, European firms follow the Japanese model quite closely.

Since the appreciation of the Yen, domestic demand has significantly grown and product development has become more active. During this period, Japanese automakers have attempted to further increase development efficiency by adopting a policy of "set" or "system" orders for their major affiliated parts manufacturers (Ikeda 1989: 49). This policy can be viewed by the automakers as part of a broader tendency to concentrate their efforts on new vehicle development while leaving parts development to the affiliated parts manufacturers.

How, then, has the system of set orders changed the relationship between automakers and affiliated parts manufacturers?

Answers to this question will be sought in the example of the instrument panel, which functionally speaking is one of the most important interior components of an automobile. A certain Japanese automaker placed its first set order for instrument panels four years ago, in 1988. Until then, the firm had placed direct orders for approximately 20 large and medium-sized components, including the instrument panel, with four large plastics manufacturers (one of which, receiving the largest order, also produced the gauges to be installed in the panel), while the production of approximately 20 small components was contracted out to roughly 20 medium and small-sized plastics firms.¹

With the adoption of the set order policy, however, the number of sup-

¹ However, some of the small and medium-sized plastics firms were also leading parts manufacturers. In addition, not all of the 20 firms received orders simultaneously when a new vehicle was being developed.

pliers was cut to the four large firms noted above, and orders to the remaining 20 small and medium-sized manufacturers are now placed through these four. Not only have the supplier channels been concentrated, but there have been a variety of changes in orders and the way they are made.

Table 1 provides a summary of changes which occurred in the relationship between the gauge manufacturer described above and the automaker before and after adoption of the set order system.

Table 1: Changes in the relationship between company A and automaker N before and after adaption of the set order system

	UNIT ORDERS	SET ORDERS
MANUFACTURING PROCESS	JOINT DEVELOPMENT Company A jointly develops the specifications and shape of the ordered component with automaker N. Guest engineers are dispatched for three months (three engineers in all).	JOINT DEVELOPMENT Company A jointly develops the ordered components as well as overall instrument panel layout with automaker N. Guest engineers are dispatched for eight months (ten engineers in all).
	DETERMINATION OF SPECIFICATIONS Provides drawings.	DETERMINATION OF SPECIFICATIONS Approves drawings.
	INVESTIGATION OF COMPONENT FITTING TECHNOLOGY Carried out by automaker N.	INVESTIGATION OF COMPONENT FITTING TECHNOLOGY Company A investigates component fitting and target quality technology and submits it to automaker N.
	EVALUATION OF RELIABILITY Performance tests for unit components (resistance to heat, cold etc.).	EVALUATION OF RELIABILITY Quality of the assembled instrument panel is confirmed (impact tests, etc.) and air bags are tested, all by company A.
DEVELOPMENT PROCESS	QUALITY GUARANTEE Company A guarantees the quality of the ordered components.	QUALITY GUARANTEE Company A guarantees the quality of the instrument panel as a whole in addition to the ordered components.
	SETTING OF TARGET PRICE Target prices are indicated by automaker N for each component.	SETTING OF TARGET PRICE A set price is indicated by automaker N, and company A must determine its own target price for each individual component.
	SCHEDULE PROGRESS MANAGEMENT Schedule is managed based mainly on customer delivery requirements.	SCHEDULE PROGRESS MANAGEMENT Company A prepares a basic development plan which may undergo modifications before obtaining approval from automaker N.

Source: Survey by the author.

In the development process, the gauge manufacturer adopted an approved-drawing system to replace the previous one whereby designs were supplied by the automaker. As a result, where before the firm dispatched "guest engineers" to the automaker for only three months beginning in the primary prototype phase, the company now sends a total of ten engineers for a period of eight months beginning in the concept study phase, significantly increasing its participation in product development.

In addition, the gauge manufacturer is now responsible for guaranteeing the quality of both the instrument panel and related components. As a result, it shares responsibility with the automaker for instrument panel design, an area previously left untouched, and has established an in-house design division staffed by several designers.

Concerning the manufacturing process, the automaker was traditionally responsible for the quality of all instrument panel-related plastic components. With the adoption of set orders, however, this responsibility has shifted to the gauge manufacturer, who must now guarantee the quality of all of the small components produced by outside plastics firms. In addition, the gauge manufacturer is provided by the automaker only with a set price and must break this figure down into individual target prices for the small and medium-sized parts manufacturers.

As is clear from the above, the promotion of leading parts manufacturers to the status of system suppliers results in the de-facto creation of a secondary tier of subcontractors consisting of small and medium-sized manufacturers. It is not clear just to what extent the automaker in question has pursued the policy of set orders, but based on the author's studies the practice appears to have spread to several fields.

If the automaker were to continue the full-scale implementation of set orders, the technical know-how for all of its main component assemblies would eventually become the property of outside firms, and the automaker himself would be effectively demoted to the status of assembler. Thus it appears that the firm is adopting a degree of restraint concerning set orders for key functional components.

Based on the author's studies, however, the proliferation of technical know-how to parts manufacturers is continually progressing amidst intensified market competition despite the above-mentioned controls. Ultimately it will prove impossible for the automaker in question to avoid the "black-boxing" of its technology, and automaker controls over parts manufacturers will probably have to be relaxed.

3. PRODUCT DEVELOPMENT AND REORGANIZATION OF THE DIVISION OF LABOUR

As the move towards set or system orders continues to gain momentum, primary parts manufacturers will play an increasingly important role in the auto development process. In addition, recent trends such as greater sales of luxury vehicles and the use of advanced electronics technology

will act as a further stimulus to the development of new products by the primary parts manufacturers.

The implementation of full-fledged product development work by the parts manufacturers will, however, entail sizeable development costs. In addition, more active product development work will require a larger staff for the development division.² This problem will be further compounded by the current shortage of skilled personnel.

In this way, primary parts manufacturers will be forced to reorganize their manufacturing divisions if they are to strengthen development capabilities. This will involve a re-evaluation of in-house and subcontracted production.

Let us now examine the case of a leading parts manufacturer engaged in the production of fuel injection systems and car air conditioners. The firm recently disbanded its "KS Group," a cooperative association consisting of 60 subsidiaries and secondary subcontractors. Forty firms were selected from this group and added to five new companies to form a new cooperative association called the SE Group (Nikkei Sangyō Shinbun, June 17, 1989).

In addition to activities approximating those of the traditional cooperative groups, the newly founded SE Group has established an expert commission to promote technical exchanges between member firms, and two instructors were dispatched from the primary parts manufacturer to each member firm in order to promote TPM (Total Production Maintenance) activities. These and other activities have been undertaken to improve manufacturing and management technologies at all group firms.

The reorganization of this cooperative group can be seen as part of the move toward the reinforcement of development capabilities at primary parts manufacturers. Previously, the firm in the above example maintained, together with a Toyota group supplier, a virtual monopoly on fuel injection systems, which constituted its leading product. Recently, however, a lack of technical advances at the two firms and intensified competition forced the firm to devote all of its energies to the development of new products.

The firm in question depends on outside suppliers for 60% of its components, with SE Group members responsible for fully 65% of all procurement in terms of value. Thus the company decided that the development

² To take an example from outside the auto industry, according to an NHK television broadcast, Toshiba's Ōme plant develops 17 types of personal computer in a single year. With a six-month development period, each model requires a development staff of approximately 1,000 employees. Consequently, the development of 17 models would require 8,500 employees (cf. NHK Shuzaihan 1991: 115).

and manufacture of higher-quality, higher-performance products would require the enhancement of production capabilities and production management systems at all group manufacturers.

In fact, the main SE Group members have recently begun the gradual transfer of production facilities from the parent firm in line with the latter's development strategies.

One fully-owned subsidiary, for example, has posted rapid growth in sales during the past several years, from 5.5 billion in 1988 to 7 billion in 1989, 8 billion in 1990 and 9.7 billion in fiscal 1991. The leading factor behind this growth was the promotion of the firm's status in the organization from a processor of parts of the fuel injection system to an assembler of higher-value-added unit components. As a result, assembly facilities and quality control equipment were transferred from the parent firm.

Naturally, the parent firm helped the smaller company to reinforce its quality control system for the unit products, and the subsidiary has been highly motivated in its efforts to improve production management in the newly established cooperative association.

Another important member of the SE Group, a secondary subcontractor, is mainly engaged in the processing of components for use in fuel injection systems. After recently receiving several processing lines, including specialized equipment, from the parent firm, this company has also made extensive improvements in its manufacturing capabilities.

As can be seen from these examples, a variety of steps are being taken toward the reorganization of the division of labour between primary parts manufacturers and the firms in their cooperative networks.

With the increasing reliance on set orders, one manufacturer of electromotors has experienced a decline in direct transactions with the automakers and instead has become a supplier of parts to system suppliers. As a result, the company is being forced to expand its own development activities in order to establish itself as a manufacturer of functional components.

As part of efforts to improve in-house development capabilities, this firm will have to selectively reorganize its outside suppliers and cooperative association (Ikeda, 1991). In the past, it boasted a cooperative association consisting of approximately 200 participating subcontractors. In 1986, however, the firm made a decision to disband this group and committed itself to reducing the number of group members by one half, to 100, by May 1995. Of the remaining 100 subcontractors, approximately 40 will be designated key subcontractors (accounting for 70% of the total value of parts procurement by the parent firm), to which the parent firm will provide a variety of assistance for structural improvements.

Specifically, the top three key firms have already begun licensed pro-

duction of unit component systems. In the past, one group manufacturer was involved in the production (processing and sub-assembly) of control rod lots for wiper systems produced by the electro-motor manufacturer, but under the reorganization he is responsible for system orders consisting of all processing and assembly for control rods, rubber elements and wiper arms.

With the aim of bringing a greater degree of order to the assembly process, the firm is discarding its policy of outside procurement of mass-produced unit components for one in which these components are produced using an integrated in-house assembly line, in which different processes are put on the same line. Specifically, injection molding, die casting and rubber processing, for which the firm previously relied entirely upon outside suppliers, will be put on the line. In order to achieve this, the firm plans to invest ¥ 1 billion in the construction of a new factory on the premises of an existing facility in the Tohoku region that will contain an integrated production line (the company also plans to replace rubber components with plastic units).

When the plan is realized, the operation of automatic integrated production lines will mean increasingly fewer orders for the firm's subcontractors. As a result, the use of subcontractors will be limited to low-volume production items.

Actually, the firm's decision to discard its policy of outside procurement in favour of integrated in-house production was not solely due to requests from the parent firm, which itself was in the midst of reorganizing its subcontracting organization; an important factor in the decision was fears concerning the stability of small subcontractors due to the current labour shortage in Japan.³

4. EXTERNALIZATION OF THE AUTOMOBILE PROTOTYPE DIVISION

Along with the new vitality of product development activities in the auto industry, the prototype divisions which traditionally functioned independently within the product engineering divisions of large automakers have been externalized and made responsible for a part of the development network.

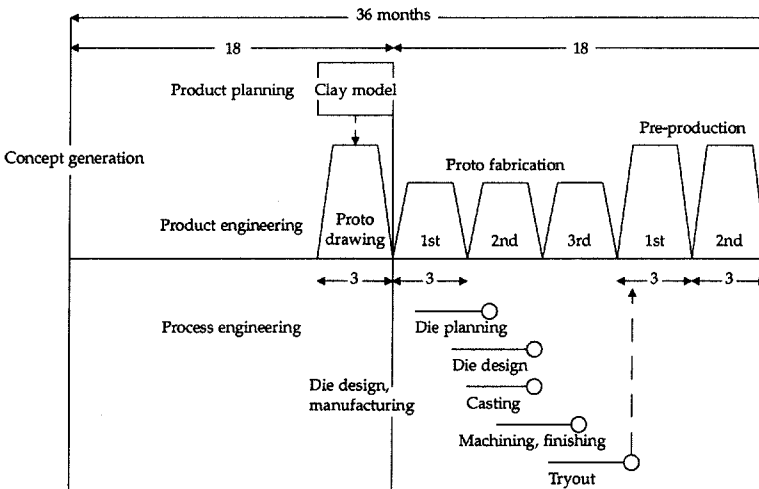
One prototype manufacturer with 90 employees was previously a metal plate subcontractor assisting in the development of sports cars. During

³ In this sense, as the labour shortage continues to increase in severity, secondary subcontractors will likely become dividing points, with the number of tertiary subcontractors to be significantly cut back.

the past several years, however, it has been producing press dies for the supply of body panels to a certain automaker for use in vehicle prototypes. In the past, this process was handled entirely in-house by the automaker's technical center. Today, however, the automaker can place a comprehensive order for all of the processes, including die design, die fabrication (wood patterns are procured externally, while casting and machining are done in-house), trials, and body panel completion. As a result, the automaker has been gradually increasing his orders to this prototype manufacturer.⁴ Orders from other automakers are also said to be increasing.

In Japan, the development time required for a press die is from ten months to a year. As can be seen in Figure 1, press dies are fabricated during the first through third prototype phases (approximately one year); the body panels must be made during the six months from the two mass-production prototypes to the startup of production. However, the prototype press dies are fabricated in advance of the press dies, and body panels for the prototypes must be prepared in advance. Specifically, this involves the two or three months from the time the prototype designs are drawn up to the fabrication of the primary prototype vehicle.

Figure 1: Development schedule of prototype car (months)



Source: Survey by the author.

⁴ At present, prototype orders from the parent automaker are responsible for 60% of the total sales by the firm.

As a result, the fabrication period for the prototype press die from design to delivery of the body panels is only about two months. For the die material, therefore, cast iron is replaced with a ZAS mold using zinc alloy or a resin mold using a ZAS core (traditionally, concrete and sand were used for the core, but such molds could not be reused, and the difficulty of finding a place to dispose of them has led to the increasing use of ZAS core molds).

Since only a small number of panels can be produced from a ZAS or resin mold using a hydraulic press, they are not suited to mass production using power presses. They are, however, suitable for small-volume, large-variety production of, for example, 100 or 200 panels. Consequently, the firm has built an assembly plant designed to produce not only prototype panels but also panels for special vehicles such as super dollies and ambulances. The firm also supplies a portion of the panels used by Takada Kogyo, which specializes in the production of limited-edition vehicles. According to the staff at the firm, a large number of prototype press die manufacturers have been surfacing as of late.

Another field experiencing rapid growth in recent times has been manufacture of the simple molds used in producing prototypes of plastic components for automobile interiors and exteriors. Fully 80% of sales at N.Proto, a firm with 90 employees, stem from injection molds used in prototype fabrication. Due to the characteristics of plastic components, the firm's orders do not come from an automaker but rather from a primary parts manufacturer which numbers among its parent firms Toyota Motor Corp. and all of the other domestic automakers as well. Recently, the firm has also been producing some injection molds for use in mass production. These now account for 20% of total sales by the firm.

Aluminum and zinc alloys are used in the production of simple prototype molds, and only three to five months are required for development. N.Proto introduced a three-dimensional CAD/CAM system seven years ago and in the field of injection molds is considered something of a pioneer. Fully 50% of the processes at the firm, including design, are now handled by CAD/CAM, with customer-supplied designs fed into CAD and connected to CAM to achieve significant reductions in development time.

Although it is primarily a prototype manufacturer, the firm is also improving its ability to respond to orders for large plastic molded components such as bumpers and instrument panels by introducing a 2,500-ton injection molding machine.

In addition to these moves toward independence by prototype manufacturers, prototype subcontractors affiliated with auto parts manufacturers have also posted remarkable growth. Of the 230 subcontractors being used by one primary parts manufacturer, more than 30 specialize in the fabrication of prototypes and have formed their own sub-group.

The Oppama plant of one exhaust system and manifold exhaust manufacturer maintains seven or eight prototype subcontractors. One of these produces metal sheeting, and increased orders for prototypes from the parent firm during the past few years have resulted in remarkable growth for the company. Eight years ago, the plant had a staff of three, including the owner, while today the payroll has grown to 13 employees and the plant is a three-story building with excellent office facilities.

Delivery times for the prototype orders received from the parent firm are growing shorter and shorter, with typical periods (from the time the order is received) ranging from as many as ten days to as few as two. Exhaust system components are the most common product, with about 450 different varieties per month.

The typical prototype fabrication process is as follows: receipt of design, wood pattern (externally sourced), gypsum mold, sand mold, ZAS mold (zinc alloy casting), pressing. As a result of development work by the owner, however, use of metal sheeting to produce a ZAS mold in lieu of the wood pattern makes it possible to complete the entire process within a 24-hour period. Although thin pieces and large pieces cannot be produced with this technique, it is well suited to the production of medium-sized components. Other than a 400-ton hydraulic press introduced in 1989, the firm has no special machinery of note, but in the near future it hopes to replace its shearing machine with laser cutting and scanning equipment and purchase a triaxial NC lathe as well.

5. GROWTH OF FIRMS ASSISTING IN DEVELOPMENT ACTIVITIES

The press die and body welding jig sectors are two typical sectors providing assistance for development work in the automotive industry. Both experienced rapid growth after the end of World War II, and since the rise in the value of the Yen leading manufacturers in both fields have achieved international levels of technology. The three firms heralded as leaders in the automotive metal die field, for example, depend on foreign automakers for more than half of their total sales.⁵

The top manufacturers of welding jigs for bodies, with 150–200 employees, are somewhat smaller than their counterparts in the press die field, having approximately 300 employees. However, they too are depen-

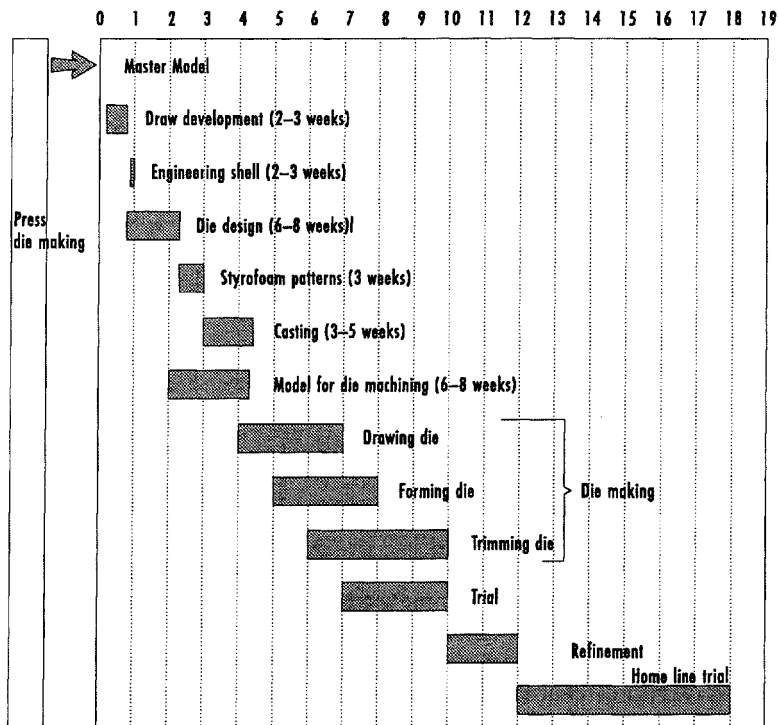
⁵ For more information on the current state of the Japanese auto press die industry, see Ikeda (1991a).

dent on foreign customers for a significant portion of their sales (20–30%), and globalization is proceeding.⁶

As shown in Figures 2 and 3, the average product development period at representative Japanese manufacturers of auto press and body welding jigs is ten months for the former and seven or eight months for the latter. The figure for both fields in the United States is approximately one and a half years. However, these data are more than ten years old, dating from a time when Japanese automakers were still modeling themselves on firms in the United States, and do not accurately reflect the current situation. According to more recent information, current development times for both sectors are more than two years. The same is true for manufacturers in Europe.

Figure 2: Die development lead time in the U.S.A. and Japan

2.1. Die development lead time (U.S.A.)



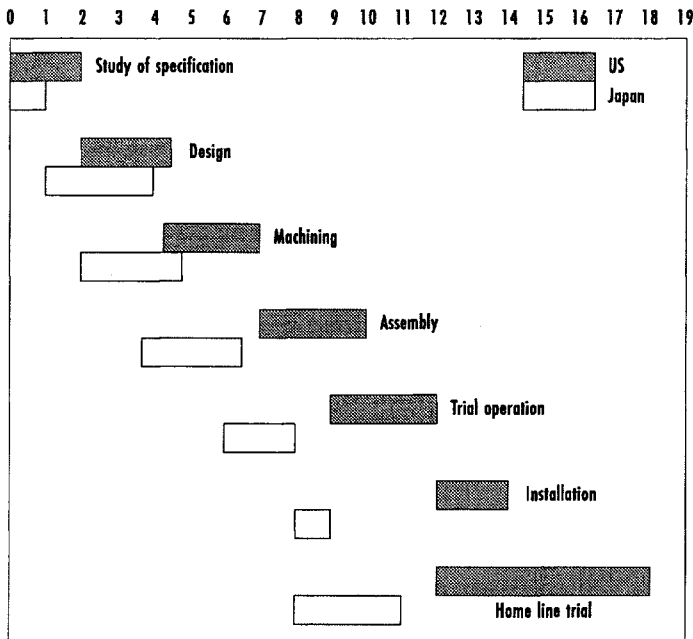
⁶ For more information on the current state of the Japanese body welding jig industry, see Ikeda (1991b).

2.2. Die development lead time (Japan)

Die design	4 months
Casting	1 month
Machining	1.5 months
Finishing	1 month
Trial (and Refinement)	3 months
Total	10 months

Source: Survey by the author.

Figure 3: Comparison of development lead time and time required for each stage between Japan and U.S. body welding jig makers



Source: Survey by the author.

Let us then examine why such a large gap has developed between companies in Japan and those in Western countries. Based on interviews, the reasons for Japan's global superiority in these fields can be summarized in the following four points.

Superiority in Equipment and Facilities

The large manufacturers of press dies in Japan all utilize three-dimensional CAD, taking in data from a master model using Japanese-made scanning machines and using these data to cut the mold using a high-speed NC milling machine.⁷ Finishing is still mainly done by hand, but the short cutting pitch of the NC milling machines allows significant time savings in the finishing operation. The master model is used to create a CAD data base – unlike in Europe and the United States, where completely model-free CAD programming is used – but this is to avoid excessively high computer costs. The companies are prepared to switch to model-free CAD once computer performance improves and the capabilities of the programming staff are enhanced.

U.S. companies have tried to bypass the use of master models in their adoption of three-dimensional CAD, but it appears that Japan will be far quicker in achieving actual results. In addition, most of the U.S. metal die manufacturers continue to use gypsum molds and copy milling machines, while even the smaller Japanese press die manufacturers with 20–50 employees have introduced three-dimensional CAD, scanning machines, and NC milling machines and appear to be graduating from the era of gypsum molds and copy milling machines.

Compared with the press die manufacturers, the producers of body welding jigs have somewhat lagged behind in their introduction of new equipment and facilities. However, the use of two-and-a-half- or three-dimensional CAD (the former indicating simultaneous use of two- and three-dimensional systems) is rapidly becoming a reality at many of these firms, and NC wire cutters and NC milling machines have been introduced for jig production and connected via CAD/CAM systems.

Sharing of Information with Automakers

Although no guest engineers are dispatched to the customer automakers, there is a full exchange of technical information during the product development period. The prototype ZAS mold-prototype panel production process, which continues to be found at all European and U.S. manufacturers, has been discarded, with most firms beginning by producing the main die.

There is also thorough unification of information in the development

⁷ Japan's most advanced scanning machines and high-speed NC milling machines were jointly developed by press die manufacturer Fuji Technica and Okuma Machinery Works.

project teams set up by the automakers, allowing for the rapid exchange of information between the two sides. In the United States, on the other hand, development project teams are not bound by function, and as a result the evasion of responsibility is a common tendency. For example, Japanese die manufacturers often find themselves waiting interminably for approval of designs which have been sent to a U.S. firm.

Job Rotation – Multi-functionalization

As should be clear from the comparison of Japan with the United States in Figures 2 and 3, the reason for the large overall gap in process periods despite insignificant differences among individual processes is that U.S. manufacturers have adopted a relay system, in which a process is begun only after the prior one is completed, while in Japan a "rugby-like" approach is taken in which the two processes are overlapped and are carried forward simultaneously.

Making this overlapping possible is the widespread adoption of job rotation and the excellent communication between work floors that results. In Japan, for example, the design division is divided (functionally) into conception, assembly design, component design and design inspection. In the United States, however, these four processes are separate jobs, and even the salaries paid for each are clearly distinguished. Thus it is impossible for the component designer, for example, to supervise the inspection of the designs. In this type of environment, active overlapping of the processes would be next to impossible.

Active Use of Subcontractors

Leading manufacturers of press dies and body welding jigs use outside sourcing for between 20% and 60% of their annual sales, a much more significant amount than firms in Europe or the United States. Moreover, long-term, continuous orders are the rule when using these subcontractors, unlike the short-term, "throwaway" approach common in the United States. This leads to the fostering of mutual trust and close communication. Subcontractors can therefore engage in active capital investment and, despite their small scale, are becoming increasingly specialized.

As noted at the beginning, the leading manufacturers of both press dies and body welding jigs have actively worked to expand their business with foreign automakers since the appreciation of the Yen, while at the same time freeing themselves from the control of Japanese automakers. In these two fields, Japanese automakers produce 20–30% of the com-

ponents they need in-house, with the remaining 70–80% being sourced to outside suppliers.

In the latter case, orders are divided into several fields, such as main body panels and under-body panels.

The continued use of this system has made the grouping of outside suppliers possible and limited the degree of independence which they could achieve while also reducing delivery times. With the increasing importance of international transactions, however, many of the leading parts manufacturers are going beyond the framework erected by domestic automakers, increasing their independence, and in particular accepting set orders from foreign automakers. By absorbing a wide range of manufacturing know-how in this way, some of the firms have made the transition from merely assisting in development work to conducting independent development work on their own.

One press die manufacturer, for example, accepts orders from automakers in the developing nations not only for press dies but for vehicle design and engineering as well. In another case, a manufacturer of body welding jigs is expanding his field of operations from body welding and assembly lines to trim lines.

In response to these moves towards independence, local automakers are taking measures to beef up their in-house press die divisions and develop body welding lines, flexible body lines (FBL), and flexible manufacturing systems (FMS) capable of coping with model changes and producing components for different vehicle models.⁸ It remains to be seen just how the industry structure will change as a result, but it appears certain that the leading manufacturers will be clearly divided into two groups, those specializing in the international market and those who will remain affiliated with a specific local automaker.

In any case, the development-assisting sector will play an indispensable role in improving the product development capabilities of the Japanese auto industry.

6. SUMMARY

Since the appreciation of the Yen, the Japanese auto industry has brought about a rapid expansion in the domestic market by reinforcing its product development capabilities. The automotive development networks which continue to develop are very noteworthy. Although the central role of the

⁸ For more information on FBL and FMS, see Yoshida (1991); Shinohara (1991).

automakers as industry leaders cannot be denied, independent developments in the areas of technology and management by sub-systems such as the primary parts manufacturers, prototype subcontractors, and development-assisting firms should not be overlooked.

In the future, these development networks will probably make it possible for the Japanese auto industry to adapt in a timely manner to the new era of large-variety, small-volume production. Furthermore, unless U.S. and European automakers can achieve the transition from conventional in-house product development to similar development networks incorporating subsystems, their future will be a bleak one.

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SUBCONTRACTING STRATEGIES OF JAPANESE COMPANIES IN EUROPE AND ASIA

A CASE STUDY OF THE ELECTRONICS INDUSTRY

Hiramoto Atsushi

ABSTRACT

The aim of this paper is to report the results of a survey on the manufacturer-supplier relationship of Japanese enterprises in Europe and Asia in the TV and VCR (video cassette recorder) industries in order to describe the conditions upon which Japan's manufacturer-supplier relationship stands. The results of the survey are explained for each parts group, that is, key parts, general electronic parts, plastic parts and PCB (printed circuit board) assembly.

The most remarkable difference in the manufacturer-supplier relationship in the electronics industry between Japanese parent plants and their transplants is the almost complete absence of PCB assembly subcontracting in the latter. The main reason for this is the small wage differentials in foreign countries. In Japan, by contrast, the dual wage structure of the labour market constitutes a very important basis for the wide-spread subcontracting system.

But it is also clear that the nature of subcontract transactions can be similar to that in Japan even without the wage differentials, as the example of Taiwan's plastic parts subcontracting shows. In this type of subcontracting, it seems that the difference does not lie between Japan and other countries, but between Japan and Taiwan, on the one hand, and Europe, on the other. This example also demonstrates that Japanese-style subcontracting is possible even against different historical and cultural backgrounds.

The grievances of Japanese transplants managers concerning transactions in Europe throw into clear relief the elements of the manufacturer-supplier relationship in Japan: the stronger position of the manufacturer, long-lasting relationships, the ambiguity of the contract and an improvement-oriented attitude. These are important factors in determining whether subcontracting in a foreign country will become similar to that in Japan, or not.

CONTENTS

1. Introduction
2. Outline of the manufacturer-supplier relationship in TV manufacturing in Japan
 - 2.1. Relationship types
 - 2.2. Ordering system
3. Parts procurement in Japanese transplants in Europe and Asia
 - 3.1. Parts procurement problems in Japanese transplants
 - 3.2. Electronic parts: international procurement

- 3.3. Plastic parts: Subcontracting
- 3.4. PCB assembly: In-house production
- 4. Concluding remarks
- Bibliography

1. INTRODUCTION

The manufacturer-supplier relationship in Japan bears quite a unique character and has contributed a great deal to Japan's success in becoming highly competitive in world markets. But, the question of whether the character of that relationship is unique to Japan or not, remains unanswered. The generally accepted idea is that the subcontracting system, which constitutes an important part of that relationship, is based on Japan's historical and cultural background. But another type of explanation asserts that the manufacturer-supplier relationship in Japan can be – and hence should be – explained in economic terms, especially through the concept of the relation-specific skill, based upon transaction cost theory, outlined in O.E. Williamson's concept of governance structure (Asanuma 1990; Williamson 1986).

In terms of empirical study, a key to answering the question of whether Japan's system is unique or not will be to investigate the manufacturer-supplier relationships of Japanese subsidiary companies in foreign countries. Japanese companies want to establish the same relationships with their overseas suppliers as those they have in Japan. It is useful to investigate whether they can carry out their intention or not, and how they can do so in order to clearly identify the conditions upon which Japan's manufacturer-supplier relationship stands.

The aim of this paper is to explain the results of our survey on the manufacturer-supplier relationship of Japanese enterprises in Europe and Asia in the TV and VCR industries and to draw some conclusions about their situations. This survey was carried out from 1989 to 1990; it covers 8 TV plants – 2 in Taiwan, one in China, one in Singapore, 2 in ASEAN and 2 in the U.K. – and 2 VCR plants in Germany.¹

In the following sections, the Japanese system will be briefly sketched. The results of our survey of their parent plants in Japan will be explained. Then the manufacturer-supplier relationship in Japanese transplants – including the subcontracting system – will be examined. Finally, some findings will be discussed.

¹ In the following the plants are abbreviated by two capital letters. The first one stands for the country (J = Japan, E = United Kingdom, T = Taiwan, A = U.S.A., M = Malaysia, G = Germany), the second one for the company.

2. OUTLINE OF THE MANUFACTURER-SUPPLIER RELATIONSHIP IN TV MANUFACTURING IN JAPAN

2.1. Relationship Types

TV parts can be classified into three groups, from the viewpoint of the nature of the transaction. The first group consists of CRTs (cathode ray tubes), ICs (integrated circuits) and microcomputers. These are the key parts which basically determine the performance of the product and, therefore, greatly influence the degree of product discrimination. Accordingly, most big TV manufacturers tend to make these parts in-house, not at the TV plant itself, but at another division or through affiliated companies. The development of new types of parts is necessary for introducing new TV models. Low-ranking TV manufacturers cannot afford to make these parts by themselves and must buy them from the bigger manufacturers.

The second group consists of general electronic parts – that is, resistors, coils, condensers, etc. – which are supplied by the large parts manufacturers. These are articles on the market, but their prices are not made public. The manufacturer tries to search for “the proper price” at which the supplier will sell. When the manufacturer begins to buy new parts, its quality assurance department develops a capability test and gives its purchasing department permission to buy them. The principle of the manufacturer is basically to buy from multiple vendors, allotting a share to each vendor based on its performance. The price of the parts is negotiated once every six months in conjunction with the manufacturer’s budget planning. The parts makers compete with each other for larger shares. Although the share of each supplier can change as, for example, a lower price is offered, the transaction itself tends to be long-term.

The third group is plastic parts and press parts, which are mainly supplied by subcontractors. The manufacturer designs these parts and subcontracts their manufacture. Design drawings and metal molds are provided to the subcontractors by the manufacturer.

The subcontractors are limited in number and are usually members of the supplier’s co-operative association. Their dependence on sales to the parent plant is usually high. In the case of plant JA, which is one of the Japanese TV parent plants we investigated, a portion of the plastic parts is made by the plant. The rest is subcontracted. JA deals with three subcontractors, whose sales to it range from 50% to 70% of their total production.

In the case of plant JV, which is also one of the parent plants making VCRs, the prices of these plastic parts and press parts are determined

through comparing subcontractors' quotations. The lowest price offer gets the order. But the parent plant has a standard price list, a "cost table", which is drawn up by cost accounting for the parts. When the offer price is cheaper than the standard, there are no problems. If the price is higher, negotiations must be conducted. Because the parent plant has detailed information about the subcontractor – for example, the number of injection molding machines and their capacities and vintages, the number of employees and management staff, etc. – negotiations may be difficult. In order to reduce the price, the parent plant often dispatches staff members to the subcontractor in order to improve the production process (Hiramoto 1992).

In addition to these parts groups, there is another type of supplier to TV or VCR manufacturers: suppliers of the assembly of PCBs (printed circuit boards). About 50–60% of the total work volume is subcontracted in the case of plant JA and plant JV. The parent plants also assemble PCBs by themselves, but tend to concentrate their production on mass-produced-type boards, in order to profitably utilize their automated assembly lines which represent such a heavy investment (Tokunaga et al. 1991). PCBs with relatively small lots and some types which cannot be profitably assembled by the automated line for technical or economic reasons, or "sub-PCBs", tend to be subcontracted. This means that the subcontractor assumes responsibility for more labour-intensive products or processes, while the parent plant is responsible for more capital-intensive products and processes. Fluctuations in business conditions influence this division of products or processes – that is, the more demand, the more subcontracting.

The number of assembly subcontractors is limited and their rates of dependence on sales to the parent are usually very high. Plant JA deals with four subcontractors, each employing 150–450 employees, whose dependent rates are about 90–95%. Among the subcontractors there are usually a few affiliated companies whose capital is owned by the parent plants.

The price of assembly subcontracting is determined by the following cost calculation:

$$\text{Price} = \text{Standard time (wage rates + overhead costs)}$$

Standard time (ST) is the time needed to assemble the product. The wage rates and the overhead costs in the formula are the subcontractor's.

The total cost is said to be about half of the parent plant's cost, because the subcontractor's labour costs are lower and its overhead is much less expensive. The price is reconsidered every budget year. Each item, such

as direct labour cost, is re-examined after negotiations with the subcontractor.

These assembly subcontractors are treated in the same way as the internal parts of the parent plant in some respects. For example, they participate in plant campaigns for improving efficiency. At Plant JV, one case in point, a "VQ (video quality) Committee" has been organized, with the goal of increasing assembly productivity and improving the quality of products. This committee meets every month under the chairmanship of the deputy general manager of Plant JV; its membership consists of presidents or plant managers of subcontractors and department managers and section chiefs from Plant JV. At the committee meeting, they present the results of their improvement campaigns and study one another's improvement methods. In the latter half of fiscal 1987, for example, concrete targets such as soldering retouching rates of less than 0.02% and ST reduction rates of more than 20.1% were set, under the slogan of "Defective Products Elimination Strategy".² Plant JV's staff assist the subcontractors' campaigns to achieve these objectives. The banners on which the slogan is written are posted on the walls of not only the plants of committee members, but also of their subcontractors – that is, the secondary or tertiary subcontractors.

Plant JV also opens its soldering and assembling tests for workers to its subcontractors. The workers of the subcontractors, who solder PCBs for Plant JV, must earn a grade higher than fourth on the test.

The suppliers usually organize a co-operative association which assumes various activities such as quality control, reduction of defects and promotion of value analysis. Plant JA and Plant JV both have the co-operative associations, the members of which include electronic parts suppliers and subcontractors.

2.2. Ordering System

An order sheet for parts is sent to the supplier from one month to 6 weeks before the delivery date, in the case of Plant JA, and 2 months before delivery in the case of Plant JV. In the case of another TV plant, there are some parts for which the order is sent only 15 days before delivery.

There are many parts, however, for which production cannot be completed within the time provided if the supplier starts buying raw materials for the products after it gets the order. In order to deliver the parts within that period of time, the supplier must arrange for the raw materials, manpower and equipment needed for the production before it

² *"furyō zetsumetsu daisakusen"*

gets the formal order. This means a supplier must take some risk during that period of time. On the other hand, the manufacturer wants to shorten this period as much as possible, because the shorter the period is, the more easily it can respond to the fluctuation of demand for the products. If the period is prolonged, the risk which the manufacturer must assume will be increased.

In order to reconcile these contradictory demands and to eliminate the risk itself, the manufacturer gives information about its production schedule to the supplier beforehand in consecutive steps. On the supplier's side, its salesmen make an effort to acquire accurate and up-to-date information about the manufacturer's production schedule. The procedure at both Plant JA and Plant JV can be outlined as follows.

At the beginning of each half-fiscal year period, the production volume for each product for the next six months is announced to the supplier on the basis of the budget. From this, the supplier can estimate the total order volume for the next half-year.

Next, the manufacturer makes a month-based production schedule for the coming three months. On the basis of this schedule, the production volume of each product for the next three months is announced to the supplier at the preliminary meeting which is held every month.

Through these announcements, the supplier can estimate the order volume from the manufacturer and can arrange production for the order beforehand. But these announcements do nothing but announce schedules, they are not firm orders. In the very nature of things, the manufacturer's budget or month-based production schedule does not necessarily become a reality exactly as planned. Change in work volume and in the composition of products are more or less inevitable. Thus to arrange the production beforehand means the supplier still assumes some risk.

One of the important roles of the supplier's salesman, along with endeavouring to raise the supplier's share, is to gather information about the manufacturer's situation in order to make the estimates more accurate. The salesman must obtain information on any modification of the production schedule as early as possible, as well as general information on the manufacturer's sales trends, the needs of the manufacturer's designers in developing a new model, etc. By and large, informal contacts, not written numbers, play an important role here. In order to accumulate information, the salesman frequently visits the manufacturer, mainly the purchasing department but sometimes also the production control department and even the design department.

After these procedures, an order-sheet, with lead-time from one to two months, is issued to the supplier. But the delivery date is often changed in practice under instructions from the manufacturer. The alteration can

happen through a disturbance in the production schedule itself or by a delay in delivery of other parts. In any case, this alteration of the delivery date also plays an important role in the manufacturer's ability to adjust the production schedule more smoothly.

The delivery date for parts is generally five days before the start of production in the case of plant JA. Delays occur in only 1 to 2% of deliveries. Even in the case of delivery alterations, the delays in delivering by the altered date are still only 15%.

To sum up, the procurement system of parts to support flexible manufacturing consists of three stages: giving information, ordering, and setting the delivery date.

The above is an outline of the general procedure or practice. There are some parts for which order or delivery require special procedures. Orders for parts whose lead-times are apparently much longer than the normal ordering period – for example, CRTs, custom ICs, lenses (in video camera recorders) – are given some months more before delivery as special treatment.

Assembly subcontracting is also managed differently. Its lead-time is on average 8 days in the case of Plant JV. The exact term of delivery depends upon whether the subcontractor further relies on a secondary subcontractor. The subcontractor receives the parts from Plant JV 10 days before and delivers finished PCBs 2 days before the start of production.

CRT deliveries are made just a day before the production of TV sets begins. The reason for this just-in-time delivery is that CRTs are bulky and very expensive.

3. PARTS PROCUREMENT IN JAPANESE TRANSPLANTS IN EUROPE AND ASIA

3.1. Parts Procurement Problems in Japanese Transplants

One of the most perplexing problems Japanese transplants have encountered is how to procure parts. In a recent survey Japanese transplants mentioned as major problem first, "quality of employees and their continuity of service" (56.2%), and second, "parts procurement problems" (49.5%). (Three items were chosen by respondents from among 14 items listed on the survey conducted by the Ōsaka Furitsu Sangyō Kaihatsu Kenkyūsho/Ōsaka Shōkō Kaigisho 1989). Other problems mentioned in the same survey are "rising wage rates" (41.5%) and "fluctuation of foreign exchange rates" (38.7%). In the case of transplants in Europe, the most important problem was "parts procurement" (81.1%). In North America and ASEAN also, this problem was mentioned by high percent-

ages of respondents (58.6% and 54.3%, respectively). This means that the parts procurement problem is an important one in the management of Japanese transplants.

Japanese transplants have, formally speaking, several alternative means to procure parts. Imports from Japan still play an important role in procurement. According to the above-mentioned 1989 survey, the ratio of the purchases from local markets, including in-house production, to total purchases is not so high. Companies with ratios of less than 20% account for 22.6%; companies with 20–40% account for 20.0%, and those with 40–60% account for 20.1% (as of 1988). This ratio is relatively high in Europe, compared with that in Asia.

In the case of TV set manufacturing, this ratio is greatly affected by CRT procurement because the CRT accounts for a large part of a TV's cost. In Europe, Japanese transplants which we investigated have bought CRTs mainly from a local supplier (in this context, "local" means within the European Community). As a result, the ratio of these plants is high, about 60–70%. In Asia, they have bought mainly from Singapore or Korea, and partly from Japan. If they can buy CRTs from a local supplier, the ratio also becomes about 60–70%.

Parts which tend to be procured from Japan include first of all custom ICs and microcomputers, both of which are developed in co-operation with the supplier; second, some of the electronic parts, e.g. a large electronic condenser to which special production skills are needed; and, finally, some special parts, for example the name plates. In addition, some raw materials, e.g. steel plates in VCRs and plastic materials in TVs, are procured from Japan. The reason these materials must be bought from Japan is that their quality is superior to the materials from local suppliers.

The source of the parts is related to how and where they are designed. The designer decides what parts should be used in the new products, and the quality assurance department tests and approves the new parts. The fact that TVs and VCRs are generally designed in Japan influences parts procurement, because the designer in Japan is inclined to use parts made in Japan. When Japanese transplants want to use local parts, they must send the parts to Japan in order to obtain approval.

This dependence on Japanese parts makes the lead-time for the transplants longer than that for Japanese plants. Because of maritime transport and customs formalities, transplants in Europe must order Japanese parts 6 months before production. In ASEAN, they must order 4 months before. However, they cannot easily obtain firm orders for 6 months hence, or even 4 months, for their products. Thus, for example, Transplant MB in ASEAN must order parts for Japan on the basis not of a firm order but of a projection of demand by the sales department. Then the transplants

must assume some risk on account of depending on Japanese parts. In other words, the transplants' production cannot respond as flexibly to fluctuations of demand as domestic plants do.

3.2. Electronic Parts: International Procurement

Electronic parts such as coils, condensers and resistors are procured mainly by importing from foreign countries. In Europe and Asia, and partly in Japan too, transplants buy electronic parts from Asian countries. For example, TV manufacturing transplants in the U.K. buy these parts from Japanese parts firms located in the U.K., which procure the parts mainly from their Southeast Asia plants.

In connection with this, the companies which we investigated developed international procurement systems for electronic parts. Company B, one of the companies we investigated, established a large mass-production TV plant in Southeast Asia and attached an international procurement office (IPO). This office works to buy parts cheaper in large quantities, combining the plant's own needs with those of other TV plants located in various countries, and then supplies the other plants with parts.

Company A also has a purchasing branch under its regional headquarters in Singapore. Formerly, this branch belonged to a sales company in Hongkong and was located in Hongkong. When the regional headquarters was established, it was moved to Singapore. The company still has a purchasing branch in Hongkong and two purchasing offices in Seoul and Taipei. The aim of the branch is the same as that of the IPO of Company B. In the latter half of fiscal 1989, the branch bought 39% of the parts used from Japan, 28% from Korea, 18% from Singapore, 6% from Taiwan, and 6% from Malaysia, and supplied 25% of them to Taiwan, 12% to Canada, 11% to Japan, 11% to the U.S., 11% to China, 10% to Thailand, 8% to the U.K., and 7% to Malaysia.

3.3. Plastic Parts: Subcontracting

In contrast to electronic parts, international procurement cannot play an important role in the purchasing of plastic parts and press parts, because transportation costs for these parts are usually high; transplants must rely on local suppliers or in-house production. According to the above-mentioned 1989 survey, 53.0% of Japanese transplants procured plastic parts mainly from local subcontractors; 24.9% mainly relied on in-house production, and 19.4% procured from Japan. In the case of press parts, the percentages are respectively 41.7%, 31.3% and 23.0%. In Europe, the percentages of "mainly from local subcontractors" is higher than the average

– for plastic parts 66.7% and for press parts 52.9% – and “mainly by in-house production” is lower (15.2% and 5.9% respectively).

There is no doubt that one of the most perplexing problems which Japanese transplants face is how to procure plastic and press parts. In every respect – quality, cost and delivery – parts made by local suppliers cannot easily meet the requirements of Japanese companies. Quality of the products is the most serious problem. According to the survey, the problems with the local subcontractors which Japanese transplants felt were “inferior quality” (68.4%), “long lead-time” (35.6%), and “high cost” (25.2%) (2 items were chosen by respondents from among 8 items listed). “No problem” was felt by only 11.3%, of which transplants in Asia NIES (newly industrializing economies) accounted for a large share. Transplants in Asia felt this problem especially acutely. “Inferior quality” was a problem for 77% of respondents in ASEAN. In Europe, the problems were “high cost” (25.2%), “long lead-time” (47.1%), and “inferior quality” (38.2%).

These problems cause Japanese transplants to tend to rely on Japanese suppliers in the districts. Japanese molding companies and press companies also began to establish transplants in foreign countries. For example, Transplant EA in the U.K. operated as follows.

At first, EA began to deal with local molding companies which supplied mainly to the automobile industry and telephone makers. But defects in the appearance of the products became a serious problem because of the importance of external appearance to a TV cabinet. Inaccuracy of measurements was also a problem as EA wanted to supply parts to the line without adjusting the assembly process. The company dispatched a resident representative to the supplier to inspect its products. In Japan, a supplier may accept a claim for inferior quality after receipt of the products. But in the U.K., such a claim will hardly ever be accepted. Further, the local suppliers did not submit cost breakdowns to EA when submitting price quotations. These problems convinced Transplant EA to move gradually to in-house production of the cabinet. As of 1990, all back-covers for its TV sets were molded in the plant.

At the same time, Japanese mold companies began to set up branches in the U.K., and EA and other Japanese manufacturing transplants have tended to deal with these Japanese mold transplants. As of the end of 1989, EA dealt with 5 mold companies, of which 3 were Japanese transplants.

But even Japanese mold transplants cannot solve the above-mentioned problems all at once. Defects of quality have frequently been found in Japanese suppliers' products. Delivery dates cannot easily be changed because there are only a few mold companies and many set makers. And last, the prices are higher than those in Japan – in extreme cases, 50%

higher. Nevertheless EA prefers to deal with Japanese mold transplants because it expects that they will be able to improve the situation.

Parts prices are determined by comparing quotations and reconsidered through VA (value added) activities at the beginning of every half budget year. But in contrast with a subcontractor in Japan, which endeavors to reduce prices of its own accord, in the interest of keeping the prices of the manufacturer's products low, the local supplier will not agree to a price reduction without a justifiable reason. Further, the local supplier has not submitted a detailed cost breakdown, the presentation of which would be indispensable to reducing the cost still further by VA activities.

The lead-time for plastic parts is three months, as it is for other local parts. Control of the delivery date of the plastic parts is very important because they are difficult to stock. Flexible adjustment of delivery in correspondence with changes in the production schedule has great importance for the manufacturer. If the delivery date is moved up, an extra charge is sometimes added for, say, overtime pay on Saturday. Claims of this kind are also advanced in Germany, but hardly ever in Japan or elsewhere in Asia.

Speaking about this problem, the Japanese buyer for Transplant EA expressed the hope that he could deal with a supplier which was located near the plant and whose sales depended heavily on it, because such a company would respond quickly to a change in the daily production schedule of the plant which was caused by other problems – the major one being the delivery of ICs. And when any problem of quality or delivery occurred, the buyer could visit the company more easily if it was located near the plant.

Metal molds needed for molding have heretofore been imported from Japan. EA owns the metal molds and provides the supplier with them.

These transactions of EA with plastic parts suppliers, including Japanese transplants, constitute "subcontracting" in the sense that the supplier provides the parts based on the manufacturer's design. But the character and the results of the transactions are quite different from those in Japan. The suppliers are not limited to a certain number and their rates of dependence on sales to one company are not so high. Their delivery dates are not so changeable as are a Japanese subcontractor's.

Manufacture and sale of plastic parts in Asia bear a somewhat different character. Transactions in Taiwan, for example, are more like those in Japan.

Transplant TA in Taiwan, as a case in point, deals with six mold companies, of which one is a Japanese transplant. The main supplier, especially of large plastic parts, is the transplant. The continuity of transactions with TA for the suppliers is generally long, about 15 years, and their rate of dependence on sales to TA is high, on average 40%.

The process of selecting a supplier and setting the price is much the same as in Japan. The decision is made through comparison of quotations from two or three suppliers and negotiations with them on the basis of the cost table. The capacity of the supplier and the quality level required for the parts are also taken into account. The price is re-examined at the beginning of every fiscal half-year.

Transplant TA gives information about its production, based on the budget, to the suppliers affiliated with the "Transplant TA Co-operative Association", and issues order sheets about three months before delivery is wanted. The delivery date is set at two days before the start of production in the case of plastic parts, and one or two weeks before in the case of general electronic parts. A meeting with each supplier is held once or twice per month, at which TA gives information on its production schedule to the supplier. The mold suppliers are said to be able to cope with a change of delivery date. If adjustment to the change requires overtime work, they do not charge extra for it.

Transplant TA has a system for evaluating the quality performance of each supplier. Based on the quality of the delivered products, each company is ranked from A to D. If a supplier is graded D, TA delegates members of the material department and quality assurance department staff to work with the supplier to improve quality.

These features of the transaction are quite similar to those in Japan. But supplier performance is still not as good as that in Japan.

3.4. PCB Assembly: In-house Production

Subcontracting of PCB assembly is hardly ever done outside Japan. Two plants out of 10 which we investigated – Transplant TA in Taiwan and Transplant GA in Germany – subcontracted PCB assembly, but only partially. The subcontract ratios of these plants are much lower than in Japan. Almost all the PCBs needed in these 10 plants are procured mainly by in-house production and partly by imports from Japan. Transplant GA depends mainly on imports from Japan; all the other plants assemble their PCBs by themselves.

The main and obvious reason for not subcontracting is its costs. Almost all the buyers we interviewed said that it made no sense to subcontract PCB assembly to a subcontractor whose workers were paid at almost the same rate as they paid their employees. If there are no wage differentials or only small differentials, there will be little difference between the cost of subcontracting and that of in-house production.

Though cost is the primary reason for not subcontracting, it is not the only one. In Japan there are other factors involved in big companies' deal-

ing with subcontractors besides cost reduction, and these have to be taken into account in the case of foreign countries as well. It is said that "reducing costs", "taking advantage of special skills" and "responding flexibly to fluctuations in demand" are the three main reasons for subcontracting in Japan (Chūshō Kigyōchō 1988: 107). In the case of PCB assembly, the first and last factors are important to the manufacturers. Thus, there must be other conditions that prevent Japanese transplants from subcontracting PCB assembly. Taiwan's case is very suggestive on this point.

Transplant TA subcontracts assembly of PCBs, not for TV sets, which are assembled in the plant, but for audio apparatus. About 15% of the total work volume is subcontracted to three suppliers. TA started to subcontract arrangement work in 1971, two years after the establishment of the plant, and in 1976 it began subcontracting of PCB assembly. The transactions with these three subcontractors have continued for about 10 years; the longest relationship has lasted 14 years. Each subcontractor has about 100 employees.

The Japanese manager of Transplant TA said the main reason for subcontracting was to respond to fluctuations in work volume, rather than to reduce costs.

In Taiwan, wages are set at the company level. But because of the high liquidity of labour, wage differentials tend not to increase. Transplant TA's wage level is almost the same as its subcontractors'. But the subcontracted cost is about 25% less than the in-house production cost, mainly because of lower overhead.

The subcontracted price is determined in nearly the same way as in Japan. These subcontractors can respond to fluctuations in work volume more easily than the parent plant does, because they can hire workers quickly and use them flexibly; for example, they may operate on two shifts of part-timers, and they may even rely on further subcontracting. On the other hand, the defect rate for subcontracted PCBs is higher than that for units produced in-house. Therefore, when a new model is introduced to the subcontractor, staff from the parent plant's quality assurance department and production engineering department are dispatched to the subcontractor for about 3 days in order to ensure a good start.

It is clearly seen that in this case to "responding flexibly to fluctuations in demand" plays an important role in subcontracting, but it creates quality problems for the manufacturer.

Transplant TB in Taiwan also has a defect rate problem with a subcontractor. TB used to subcontract PCB assembly of audio apparatus, but gave up the practice for two reasons. The first was that the introduction of automatic insertion machines reduced the assembly cost enough to cover the cost difference between the subcontractor and in-house production. The

wage level of the subcontractor is from 10 to 15% lower than that of TB. The second reason was that the introduction of the automatic machine also improved the quality level of in-house PCBs, which highlighted the inferior quality level of the subcontractor. The defect rate of PCBs delivered from the subcontractor used to be 10–20%. (In the case of its parent plant in Japan, if the defect rate of the subcontractor reaches 1%, the parent plant dispatches its staff members to the subcontractor to improve the defect rate.)

A high defect rate for subcontracted PCBs is also seen in Transplant GA in Germany. Formerly GA had dealt with two subcontractors, one of which closed its account with the plant afterward. The defect rate for the subcontracted PCBs from the other supplier after delivery is from 10 to 15 times higher than that in Japan.

Another example can be added. Transplant EB in the U.K. at one time tried to subcontract PCB assembly. But the trial ended in failure. The manager of EB said that the transactions could not be controlled well enough to stabilize the quality level of the subcontractor, which was so low that EB could not accept the assembled PCB. In his opinion, the local supplier cares so little about the quality of its products that no Japanese companies could deal with it.

These cases clearly show that the quality is the other reason why Japanese transplants cannot subcontract PCB assembly as their parent plants in Japan do. Even in Taiwan, where transactions with the suppliers have many similarities with those in Japan, manufacturers cannot rely heavily on the subcontractors, mainly because of quality problems.

Lately a new type of procurement is gaining popularity: the international procurement of PCB assembly. Transplant EA in the U.K. and Transplant AA in the U.S. have begun to procure assembled PCBs from their sister plant in Malaysia. Company B's parent plant in Japan has begun to import assembled PCBs from Transplant MB in ASEAN, and its Transplant AB in the U.S. assembles chassis for import to Japan. The reasons for international procurement seem to be, on the one hand, to reduce cost and, on the other, to utilize the idle capacity of one plant to supply PCBs for a busier plant. This means that international procurement begins to be a partial substitute for domestic subcontracting.

4. CONCLUDING REMARKS

The most remarkable difference, in terms of the manufacturer-supplier relationships between Japanese parent plants in the electronics industry and their transplants is the almost complete absence of PCB assembly

subcontracting in the latter. The biggest reason for this is the small wage differentials in foreign countries. As a countermeasure, transplants must assemble all PCBs by themselves or partially import from Japan or another country.

This situation clearly shows that large wage differentials in Japan, or the dual structure of the labour market, constitute a very important basis for the wide-spread subcontracting system in Japan. The dual wage structure influences a great deal the "make-or-buy" problem of the firm; that is, it sets the boundaries of the firm, as seen in in-house production of PCB assembly in transplants.

It is, however, at the same time clear that wage differentials are not the only reason for subcontracting, because a few transplants have intended to subcontract PCB assembly in spite of the small cost differences. If circumstances would permit, transplants would begin, or expand, the subcontracting of PCB assembly. It is clear that the absence of PCB assembly subcontracting in foreign countries depends on other factors. Specifically, quality is the most serious obstacle to PCB assembly subcontracting. But the quality problem itself must be a product of the existing level of the supplier's ability and the nature of the transactions. If these conditions can change, subcontracting of PCB assembly may be made practicable without large wage differentials.

Taiwan's case makes this point clear from another angle. Although subcontracting of PCB assembly can seldom be done even in Taiwan, the nature of the transaction seems to be similar to that in Japan in plastic parts subcontracting, which does not have large wage differentials. In this type of subcontracting, it seems that the difference does not lie between Japan and other countries, but between Japan and Taiwan on the one hand, and Europe on the other. This implies three things. First, subcontracting can be similar to that in Japan even without wage differentials. Second, similarity is possible even where there are different historical and cultural backgrounds. Third, it seems, however, at least so far, that no similarity is possible in Europe.

What makes the difference between Japan and Taiwan, in Asia and Europe? Here certainly lies a key to the solution of the question in the opening paragraph, to which this case study cannot supply an adequate answer. To answer the question, more detailed investigation of each country's society and culture will be necessary.

But it is possible to point out here some differences in the type of transaction between Japan and Europe, which Japanese managers of transplants themselves recognize and complain about. Because the crux of the problem lies in the nature of the transactions, the discussion might help further investigation.

First, concerning the position of the supplier, a number of Japanese managers are impressed by the fact that the supplier's position is equal to or higher than that of the manufacturer in Europe, which is unimaginable in Japan. It is natural for a manufacturer in Japan to expect various kinds of service from a supplier, even when it is a big enterprise, because the manufacturer is the customer. The supplier tends to offer services in order to obtain orders and raise its share of the manufacturer's purchasing. One may think this is natural between a big manufacturer and a small supplier, but it also applies to the relationship between big companies. For example, the delivery of electronic parts from big suppliers once followed a custom named the "cock system", under which parts suppliers of their own accord kept a stock of parts in the manufacturer's warehouse. Not until the manufacturer took the parts out of its own warehouse was the sale formally transacted. This system is still used in a few companies, although it has been slightly changed. It was a kind of service performed by the supplier for the manufacturer.

It is also natural for a Japanese supplier to comply with various requests from the manufacturer – for example, making a new type of part, cutting costs, shortening lead-time – in order to get a higher share of the manufacturer's business. In Europe, by contrast, existing products, costs and its lead-time are preconditions set by the European supplier, and it is up to the manufacturer to decide whether to buy or not. If the products are not acceptable to the manufacturer, the latter had better search for another supplier.

Japanese managers have other complaints. A supplier in Europe tends to dislike intervention by the manufacturer in its business, and it does not want to submit breakdowns of its price quotations, which is a precondition for the manufacturer in Japan; the equality of the two parties is the source of these complaints.

Second, transactions in Europe are negotiated one by one. In Japan, after a basic contract document has been signed, each side of the transaction assumes that it will last a long time. In Europe, each individual contract plays a very important role. As a result, for example, the supplier can sometimes charge extra for an advance in the delivery date, which is hardly done in Asia.

The third difference is related. Japanese managers insist that European suppliers' greatest concern is to carry out the terms of the contract, that is, to meet the quality standards and delivery date which the original contract prescribes.³ The supplier often says that if the manufacturer re-

³ But this difference seems to be a matter of degree. Non-contractual practices are common in many routine transactions, even in such a litigious society as the U.S. (cf. Macaulay 1963).

quires better quality products, it should re-order the products at higher prices that reflect the higher quality. To meet a certain quality standard is its responsibility, but to improve it is not. In connection with this, our respondents reported that European suppliers will not accept orders for which design drawings are not completed.

In contrast, it is important for a Japanese supplier to endeavour to improve the quality and shorten the lead-time of its products in order to continue the relationship. It is also usual for a supplier to accept an order for which the design drawing is "like a comic picture" and to comply with changes in the delivery dates. In the case of plastic parts procurement in the U.K., as we noted, the manufacturer prefers to deal with Japanese transplants, not because of their existing performance but because of their willingness to make improvements.

These complaints of Japanese managers overseas are helpful in clarifying the elements of the manufacturer-supplier relationship in Japan. These include the stronger position of the manufacturer, a long-lasting transaction relationship, the ambiguity of contracts and improvement-oriented transactions, factors which are certainly all linked.⁴ It is safe to say that these are important factors in determining whether the transaction of subcontracting in other countries will become similar to that in Japan, or not. So far, because transactions in many countries bear a different character from that in Japan, especially in Europe, transplants prefer to deal with Japanese suppliers' transplants, in both plastic parts and electronic parts.

Whether the Japanese type of transaction can be transferred to other countries, or to what degree it can be transferred, time alone will tell. This case study shows there are many obstacles which lie outside the realm of an individual company's own discretion, both in economic respects and in social and cultural respects.

⁴ A long-lasting transaction never means a long-term transaction in which conditions are carefully planned and fixed, based on an estimation of a long-term trends in future supply-demand relations. On the contrary, both parties to the transaction are expected to adjust themselves flexibly to changes in the course of the conditions in the long-lasting transaction (Tamura 1986: 133). Thus ambiguity of the contract and an improvement-oriented attitude are indispensable to a long-lasting transaction.

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PROBLEMS OF INDUSTRIAL RELATIONS AT PLANT LEVEL IN THE COMPONENT SUPPLY INDUSTRY IN THE FEDERAL REPUBLIC OF GERMANY

Reinhard Doleschal

ABSTRACT

The German automobile component industry is one of the most important and most innovative among those of the Western industrialized nations. It is highly internationalized through its export and foreign branches. Well-known conglomerates as well as many small and medium-sized specialized firms are typical for this industry. Due to massive pressure caused by international competition, the practice of co-determination at just-in-time plants is considerably restrained. Decisions made at these plants have a major impact on the suppliers' operations and procedures. Thus, just-in-time concepts paralyze the so far most important co-determination rights of the suppliers' works council with respect to social and personnel matters. Existing patterns, institutions and instruments of industrial relations are by no means an obstacle to structural changes. Trade unions are remarkably hesitant in responding to this structural change and the entailing shifts of power in the supplier-purchaser relationship. So far, they are still at the stage of inter-plant exchange of information and experiences. As far as collective bargaining is concerned, the new problems arising from change have not yet been really dealt with. For the German industry-wide trade unions the present main problem is that of changing organizational responsibility.

CONTENTS

1. Introduction
 2. The German component supply industry in the context of the European Community
 3. Works council policies and co-determination problems in suppliers' plants under conditions of increasingly vertical relationships and just-in-time production
 4. Just-in-time production experiments and problems of work conditions
 - 4.1. JIT production and working time
 - 4.2. JIT production and wages
 - 4.3. JIT production and works councils
 5. Summary
- Bibliography

1. INTRODUCTION

This paper deals with some of the problems which have entailed reorganization or systemic rationalization (cf. Altmann et al., 1986; Altmann and Sauer, 1989) in the West German automobile and automobile component industry, and which have recently been linked with the catchword *lean production* (cf. Womack et al., 1990). This concerns relations within and between manufacturers and suppliers along the lines of logistic value-added chains (cf. Doleschal 1990a). In this paper I will discuss in detail how far this process of organizational change affects industrial relations. In this context and from a sociological point of view, the behaviour of industrial actors and the framework of their behaviour within the firms are of particular interest.

The enormous success of Japanese car manufacturers in international markets and the imponderability of the development of the Single European Market shocked West German car manufacturers. As a reaction to the so-called Japanese challenge they have started since the mid-1980s to increase the flexibility of production and assembly by reorganizing their component supply in order to respond more quickly to new marketing concepts. One strategy to improve the shrinking return on investment, which in turn was a consequence of the rising investment expenditure, was to rearrange the complete development and production process (of parts, components, and assembly) so that long idle times are avoided. By means of extensive computer-aided evaluation, selection, and control car manufacturers proceeded to optimize every stage of development and supply. This was to reduce development time as well as production lead time of parts and components. Specialized suppliers feature a more lucrative cost structure in cases of variety production. This speeded up a successive reduction of in-house production at the final manufacturers' plants and gradually led to a segmentation of purchasing and materials management. Thus in the Federal Republic of Germany a situation has emerged in which suppliers – which apart from a few exceptions used to be formally independent of the car industry – produce less and less for an anonymous market. On the other hand they have not turned into mere dependants of the car manufacturers but are becoming increasingly active in intensive technological cooperation and transfer of know-how with respect to manufacturer-specific research and production. However, it has to be stressed that the reorganization of the supply system does not follow the lines of well-planned and tested concepts. Instead, the process must be viewed as a "search phase with experimental character" (Hirsch-Kreinsen et al.

1990: 97ff.). Each firm with its specific range of products, firm structure and potentials still has to find its optimal and adequate organizational form.

These technical and organizational strategies are limited neither to certain manufacturers nor to certain countries.¹ Thus, the following question arises: What are the effects of these experiments on industrial relations within and between the firms? How do they change structures and substances of industrial relations? And to what an extent do they affect the framework of industrial relations within the firm?

Industrial relations in Germany consist of two structural elements: the dual system of intra-firm labour representation ("shop stewards" (*Vertrauensleute*) and works councils set up by the Works Constitution Act (*Betriebsverfassungsgesetz*)), and the whole body of labour and social legislation (including freedom of association, right of industrial action, dismissal protection, the Labor Promotion Law, etc.). Both account for a highly regulated system of industrial relations. Thus, the question arises of how far just-in-time projects still belong to the "traditional" pattern of bi- or trilaterally regulated and influenced proceedings and how far present regulations of industrial relations are still *de facto* of relevance. When in the following the component industry is mentioned, this only refers to firms which feature works councils according to the Works Constitution Act.

According to the Works Constitution Act, in firms with more than five employees the work force is entitled to elect a works council. The number of council members depends upon the total number of employees in the firm. In firms with up to 9,000 employees, the council consists of 31 members. That number rises by two for each additional 3,000 employees. In firms with more than 300 employees the law provides for the possibility that one member is exempted from the duty to work (and thus being free for full-time representation tasks). However, one has to keep in mind that of the total of 336,561 firms in the "old" F.R.G. with some 8.2 million employees within the manufacturing sector (Statistisches Bundesamt 1991), only 33,000 feature a works council (cf. Kittner 1991: 427). One reason for this is that of the total number of firms 326,328 have less than 100 employees, totalling a work force of some 2.5 million.

We know from studies on industrial relations within small and medium-sized firms that in firms with less than 100 employees there is only

¹ Italian and French manufacturers are also forced to adapt their policies to new international challenges.

a small number of works councils (cf. Hilbert and Sperling 1990: 178; Bosch 1989; Weimer 1983). Wassermann (1991) estimates that works councils have been established in only 2,500 firms – of a total of 18,000 firms in the metal industry employing between 6 and 49 workers. The largest firms (10,233 firms with more than 100 employees each) employ 5.7 million people; those that employ a work force of more than 1,000 have a total work force of some 3.4 million. That amounts to 41% of the whole work force in the manufacturing sector. While in nearly all of the large firms and plants works councils have been established, this is rarely the case in small firms with less than 100 employees.

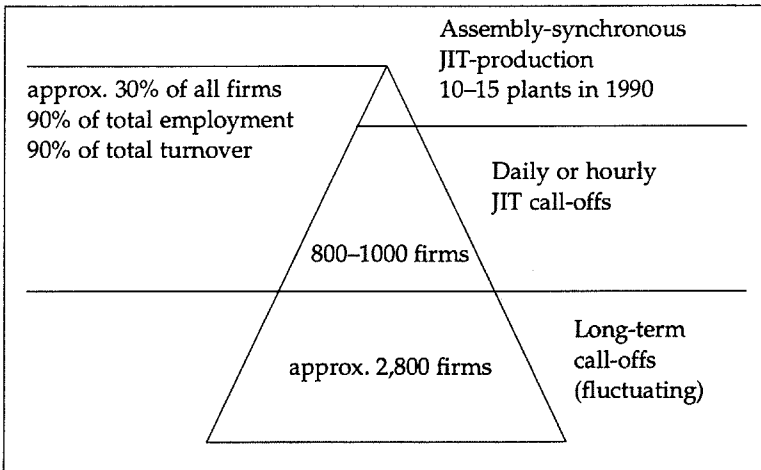
From the assumption that in almost all firms with more than 200 employees a council exists, one has to conclude that among the remaining 331,399 firms only 27,851 do have a works council. Proceeding further from the assumption that two thirds (3,347) of the firms with 100 to 199 employees have a council, then only 24,504 (7.5%) of the remaining firms (i.e. 326,328) feature a works council. Now the Works Constitution Act provides for one council member to be exempted from work only in firms with more than 300 employees. These figures and facts lead to the conclusion that professional and permanent work of the works council can only be highly effective in firms of that size and larger ones (c.f. Hilbert and Sperling 1990: 178). But if one assumes that in almost all firms with more than 200 employees (5,162) a works council does exist, then these councils represent no less than a total of 5.04 million employees, amounting to 61.4% of the total work force of the manufacturing sector within the “old” Federal Republic of Germany. Thus some 3.2 million employees in 331,339 firms with less than 200 employees each are represented by only 27,850 councils. This amounts to a mere 8.4% of all firms with fewer than 200 employees.

Thus, we primarily deal with medium and large suppliers, which in the subcontracting hierarchy (cascade) mainly belong to the first, and perhaps to the second and third level. In this context in the F.R.G., too, the subcontracting hierarchy ranges from direct suppliers of the first level over several stages down to homework on contract in peripheral areas. This is not at all a Japanese particularity.

2. THE GERMAN COMPONENT SUPPLY INDUSTRY IN THE CONTEXT OF THE EUROPEAN COMMUNITY

The "old" Federal Republic of Germany, with its roughly 3,600 component supply firms that employ a work force of some 780,000, is the most relevant supply country within the EC (cf. Doleschal 1990b). Among those 3,600 identified German suppliers, there are some 15 just-in-time firms, working assembly-synchronously, which produce and deliver complete seats, door modules, or bumper systems in sequences of 20 minutes. There are about 800 to 1,000 just-in-time firms which produce and deliver on daily schedules. Finally there are some 2,600 to 2,800 traditional component suppliers with irregular production and delivery schedules (cf. Doleschal 1990b and Figure 1).

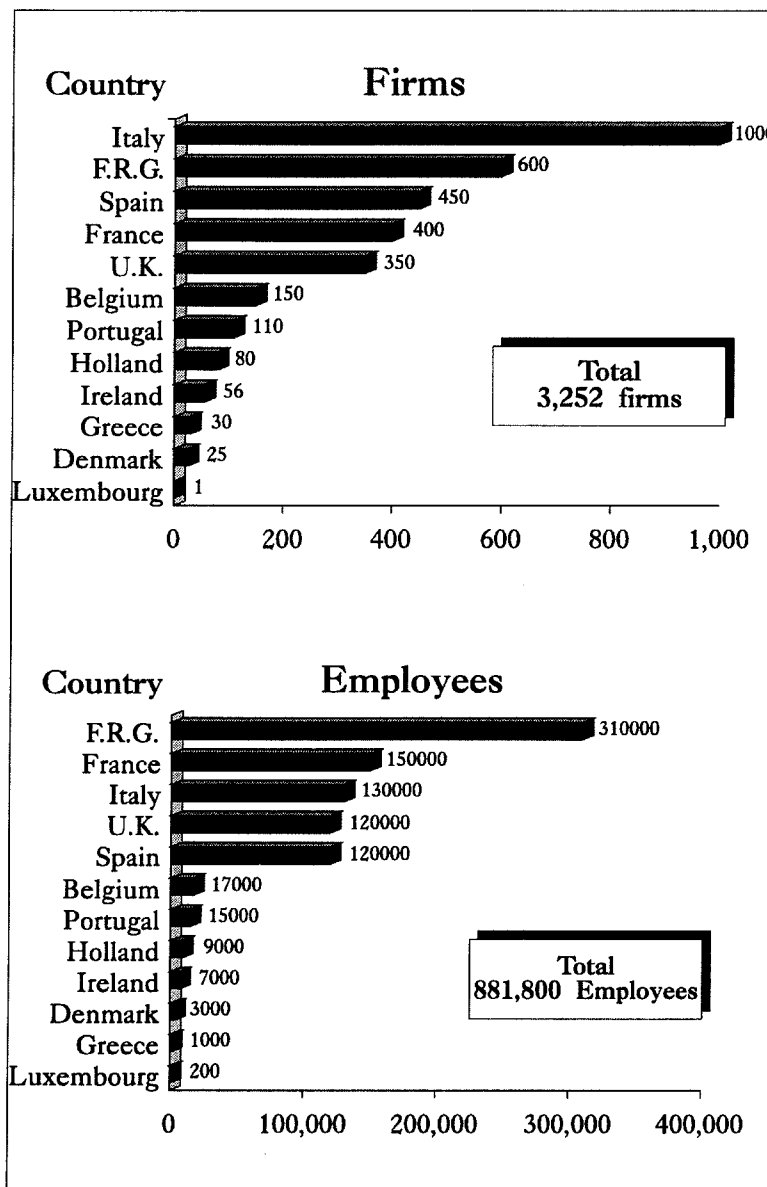
Figure 1: Automobile supplier pyramid in the F.R.G.



Source: Survey by the author.

In this group of suppliers some 90% of the work force produces for the automobile industry, and 90% of the turnover of this group is obtained from supplying the car manufacturers. If component industries are considered only in a narrow sense, the F.R.G. has a lead in this sector, insofar as it features 600 firms and 310,000 employees (cf. Doleschal 1991 and Figure 2).

Figure 2: Automobile supplier in the EC 1989



Source: Boston Consulting Group 1990.

In contrast to the other EC member states, Germany features a more balanced ratio of large, medium and small firms, which adequately fulfill complementary functions within the vertically structured supply industry. Other West European countries often lack supply firms of the medium-sized group. Frequently they are "producers according to blueprints" without a considerable potential in research and development (cf. Lane 1991). This is one of the reasons for the fact that the West European automobile industry procures nearly all of the sophisticated components from German firms. More simple commodities based on steel, iron, or plastics as well as standardized and electrical parts, in contrast, are also obtained from peripheral West European countries. This is remarkable in particular because, for instance, in Great Britain, France and Italy there are also some large component suppliers, which operate on an international level. Some of these are independent from the car manufacturing industry, possess R&D (research and development) facilities of their own, and have branch plants in Germany and other European countries. Some of them (e.g. ECIA, ACG, Magneti Marelli, Teves) belong to larger American or European concerns of the automobile or electrical industry (e.g. FIAT, Peugeot, GM, ITT).

Like other branches and industries, the German automobile component supply industry is highly concentrated with respect to employment and turnover. About 20 suppliers within the area of the "old" F.R.G. employ a work force of more than 10,000 each, approximately 60 firms employ more than 2,000 each, and around 100 firms 1,000 each. The largest West German component supplier has more than 60,000 employees working only in the car component sector (cf. Doleschal 1990a). Thus, it can be assumed that, with a few exceptions, we will find a works council in virtually all of the 180 largest automobile component suppliers' plants. If the estimate for the car component supply industry is based on the usually applicable central works council ratio, then 10% of the total number of 3,600 firms do have a council.

The largest 180 component suppliers are usually either limited liability companies (*GmbH*) or joint stock corporations. In most cases they have branch plants within Germany or abroad. Also, they usually possess large R&D departments. They therefore have traditionally also been suppliers of new developments and, more recently, of systems or modules. To achieve this and the ability to deliver just-in-time call-offs, they sometimes install new plants. In these plants, however, one can observe a geographic separation of R&D centers from production and assembly plants: the latter are usually installed close to auto factories. This is reflected in a plant-specific qualification profile of the work force.

3. WORKS COUNCIL POLICIES AND CO-DETERMINATION PROBLEMS IN SUPPLIERS' PLANTS UNDER CONDITIONS OF INCREASING VERTICAL RELATIONSHIP AND JUST-IN-TIME PRODUCTION

In general, one can assume that regulations and subjects of industrial relations within the German automobile component industry *de facto* differ significantly from those of the automobile industry itself or other industries, although – *de jure* – they are subject to the same regulatory framework. The reasons are, on the one hand, the specific size-structure of the industry's firms and plants and, on the other hand, the structural dependency upon the oligopolistically structured automobile industry.

While large firms of the automobile component industry feature, by and large, formalized and well-established relations among management, trade unions and works councils, forms of negotiation and co-determination become less formalized and regulated, the smaller the observed plant is. Often, patterns of "shadow co-determination" do emerge, which exclude those actors that are envisaged by both trade unions and the law (cf. Hilbert and Sperling 1990: 177). Moreover, suppliers usually belong to different industry-wide unions and employer associations. In-company actors, therefore, are subject to specific pay agreements and deviating collective norms, which basically result from the respective strength, degree of work force organization and policy of each trade union.

Works councils do not have co-determination rights with respect to management decisions, e.g. those concerning investments, relocation or new installations of plants, implementation of new machinery, and other economic factors. The Works Constitution Act provides only for a right to information when fundamental interests of the work force are at stake. Consequently, management tends to address the works councils only when conflicts concerning personnel are to be avoided or a smooth execution of unpopular decisions is wanted. For firms consisting of one central and several branch or just-in-time production plants – which may be dispersed all over Europe – it is therefore of great significance on which level negotiations and exchange of information between management and works councils take place. The most important person on the side of the works councils is in most cases the chairman of the central works council,² who indeed is usually best

² To avoid coordination problems in a firm with several plants, § 47 of the Works Constitution Act demands the establishment of a central works council (*Gesamtbetriebsrat*), to which each single works council delegates a maximum of two of its members. According to § 50 of the Works Constitution Act the general council is competent on matters concerning the whole firm and on matters concerning

informed. Works councils in branch or just-in-time plants, therefore, significantly depend on this chairman's willingness to cooperate and to share information. However, it is self-evident that the chairman tends to represent, in the first place, the interest of "his" plant, whose work force has elected him.

The managers of the branch plant often find themselves in a similar interest configuration. They, too, depend on the favour and willingness to share information of the central management. In particular in those cases where branch plants of the same company compete with each other, sometimes quite unusual coalitions of management and labour emerge within one dependent plant. For both are "wedged" between the interests of the central management and the targets and requirements of the automobile industry. Thus, when particular interests of the branch are at stake, frequently coalitions are formed within the branch plant that are directed against both central management and the central works council. Spurred by the intention to strengthen its own position within the company, the management of the branch plant – supported by the works council – enters into a "contract with the devil", i.e., with the automobile industry. However, not only does this entail the dilution of so far valid rules of industrial relations within the component firm, but it also means that existing space for manoeuvre in co-determination areas like personnel or organization of the council's work is being restricted. In general, however, it can be claimed that actors within branch and just-in-time plants are more and more excluded from fundamental decisions concerning economical, technical, or organizational areas. For such basic decisions are usually made by the central management and the car manufacturer whereas the job of the branch plant management is confined to smooth execution. Thus, we have not only a puppet-employer (cf. Trümner 1990: 166ff.) but also a puppet works council, with both having only marginal influence on fundamental decisions.

Apart from these structural disadvantages, another has to be mentioned: While the members of the works councils or central works councils (or at least their chairmen) of the mother plants are usually "professionals" who have developed a certain mode of communication and negotiation, members of the works councils of the branch plants are usually much less experienced. In addition to this, branch just-in-time plants with around 300 employees have only one full-time council member, who is normally burdened with most of the problems and work. The chairman is also very often the only addressee for trade union matters. Thus, he also is in charge of organizational tasks, membership recruiting, and serv-

several plants of the firm (cf. Däubler 1991: 160ff.).

ices for the trade union members. However, there are often disputes between works councils and the trade unions on questions of work conditions, working hours and pay systems.

Thus, for inexperienced works councillors it is quite a task to handle organizational matters competently with respect to both their social implications and to their compliance with laws and collective industrial agreements.

4. JUST-IN-TIME PRODUCTION EXPERIMENTS AND PROBLEMS OF WORK CONDITIONS

Within newly established "green-field-plants", time-tested and well-trying social structures and industrial relations do not exist. Therefore, management often acts intuitively and pragmatically rather than according to legal or collectively agreed regulations. New just-in-time plants are also labs for new forms of work organization, of working time, of shift scheduling, and of pay systems. However, in contrast to the automobile industry, most suppliers are reluctant to introduce new patterns of work organization. Predominantly, they still rely on assembly lines and computer-aided PPS (production planning and steering system).

In rural areas or those with structural disadvantages, deviation from formal regulations is no exception. Far away from the mother plant and trade union control, management can enforce decisions which are out of line with established regulations. Agreements are often made verbally and revised only when required. Due to the lack of experience or power, works councils go along in most cases.

Moreover, today there are hardly any works councils in the F.R.G. which fundamentally oppose technical or organizational innovation. Until the 1980s works councils mainly pursued a policy of impeding innovation, and in doing so they were backed up by the trade unions. Today, disagreement is basically confined to personnel, social and pay policies.

4.1. JIT Production and Working Time

Suppliers to the automobile industry – and in particular just-in-time plants – are subjected to increasingly stricter targets with respect to quality and short-notice call-offs. Whether they like it or not, these requirements can only be met through a more flexible deployment of personnel as in most cases technical capacities do not suffice to reach the flexibility targets otherwise. Extra hours up to the very limit which is legally permitted –

and sometimes beyond – are by no means exceptional. Consequently, if a supplier has at his disposal several branch plants with the same or similar equipment, he will place “critical” orders with those plants where overtime is met with hardly any resistance. It is also quite common for subtasks which cannot be executed during the normal weekly working hours to be subcontracted (with trade unions ignoring the practice) to smaller suppliers where work continues over the weekend. While this type of rule-dodging is tolerated by the works councils, at least in boom periods, relocation of production abroad is more clearly viewed as a threat to job security. In spite of being more and more tied to the automobile industry, its suppliers – for technical as well as organizational reasons – are hardly ever able to adopt the working-time patterns of the former. On the contrary, as they are integrated into assembly-synchronous production, they have to make their working-time schedules as flexible as possible with respect to that of the manufacturer.

Within the automobile industry, with the emergence of a wide range of different shift work schedules, work attendance time is becoming more and more detached from collectively agreed individual working hours. In some shops production has become virtually uninterrupted (fully continuous shift model); there are plants with four shifts lasting 10 hours each, and there are factories with regular night shifts. In many cases suppliers experiment with similar models. However, some of these have proved to be counter productive.

4.2. JIT Production and Wages

A further significant factor in production decisions is the wage differential between different supply industries as well as between large and small firms. In some supply industries – e.g. textiles and paper (car interiors and furnishings) the average wage is 30% lower than that of the larger metal processing firms. Although for strategic management decisions labour cost is only one factor among many others, it must not be underrated. This applies in particular to labour-intensive industries, whose productivity is below average. In this respect they sometimes differ considerably from just-in-time plants, which apply a more sophisticated technology and produce and deliver according to the principle of sequenced assembly. As for the wage system itself, in many cases a shift from the traditional piecework rate to a variety of premium systems can be observed. In particular for just-in-time systems, performance according to targets is essential. Make-to-stock production is as little desired as are shortages. Thus, payment by piece rates no longer serves a purpose. Instead, *quality* and *schedule effectiveness* are rewarded.

However, in spite of all the euphoria over modernization and keenness to experimenting which can be observed in the supplier industry – and in particular in just-in-time firms – one must not forget that inside the supply pyramid there is also a vast number of firms that still apply the piece rate system and will continue to do so in the foreseeable future.

4.3. JIT Production and Works Councils

Works council policy will not remain untouched by these technical and organizational changes in the supply industry. The closer suppliers – and especially JIT plants – cooperate with car manufacturers in organizational and technical matters; the more data processing and work proceedings are brought into line, the more difficult it will be for the works councils to organize their work according to their own concepts. The problems start with scheduling employee meetings and extend to violations of the workers' right of complaint. In all activities of both employees and works council one has to consider targets of and obligations to the automobile manufacturer. In cases of sequenced and thus "time-critical" production and delivery targets, there is hardly any space for works council activities. It is true that works councils in plants supplying component have always been in the strait-jacket of co-responsibility for meeting the requirements of the automobile industry. However, they used to have a better chance of forcing management to lay in safety stocks.

In tougher, internationally determined competition, works councils are virtually stripped off this strategic instrument. Usually, the works council of the supplier has to orient itself in line with the plans and agreements of the works council of the car manufacturer. The supplier's works council has no voice in these plans nor is it informed, although the decisions of the car manufacturer seriously affect the supplier. In the worst cases, the works council of the manufacturer can also decide on extra hours, extra shifts or shorter working hours within the supplying plant. The scheduling and duration of employees meetings – as provided for in the Works Constitution Act – may be externally determined, too. In order to ensure uninterrupted production, in JIT plants closely linked to final assembly employees' meetings have to be synchronized. As soon as production at the car manufacturer is interrupted, the JIT plants must swiftly respond.

Works councils of component suppliers are normally not informed of actions by the councils of the car manufacturers. If they get information at all, it is only on matters which are legally subject to co-determination rules, at a point when it is too late to influence decisions without jeopardizing orders and jobs.

On the other hand, suppliers' works councils have not really tried to

establish communication procedures with their counterparts at the manufacturing plants. Communication has remained a sporadic affair. There is little interest on the side of manufacturers' works councils to intensify and institutionalize such contacts. Often, members of these works councils conceitedly refer to themselves in a "we-of-the-car-industry" fashion, keeping their distance from workers in the supply industries.

With no formalized and institutionalized cooperation between works councils of the automobile manufacturers and those of the suppliers' and with trade unions being slow in encouraging informal networks – to ensure that councils in the supplying plants receive quicker and better information – existing cooperation and trade union strategies based on it mainly depend on personal contacts. In the past the large trade unions concentrated on assisting works councils and shop stewards of the automobile industry, because these in turn dominated trade union policy to a large extent. Only since the mid-1980s have we observed increased activities of the trade unions on both national and regional levels to integrate works councils and shop stewards in the supply industry. This is undoubtedly a result of just-in-time production and the increasing vertical integration of plants within the supply pyramid.

5. SUMMARY

This contribution is intended to show that the increasing vertical and horizontal integration of the automobile industry with its supply industry is a double-edged development. On the one hand, suppliers are becoming extremely dependent – in technical and organizational matters – on the automobile industry. On the other hand, this offers opportunities to modernize the firm. Make-or-buy decisions, reduction in the depth of production, and just-in-time production take place in nearly all plants along the procurement chain and, in most cases, entail the relocation of non-profitable production departments. Thus, development is uneven in the Federal Republic of Germany. While some firms successfully adjust to new conditions and manage to take advantage of the good aspects, for the majority of firms only less attractive areas remain. In their cases, prices are largely determined by labour costs. Consequently, relocations to low-wage regions are no exception.

As for industrial relations within the components supplying industry, there are a variety of styles and patterns resulting from the specific development of these firms. The size of the firm by no means determines the patterns of industrial relations: rather, these depend on specific factors

like structures of qualifications and production, location, and the respective firm's position within the supplier pyramid.

The industrial relations of just-in-time suppliers whose production is synchronized to final assembly demonstrate how a number of time-tested rules and rights of co-determination are – *de facto* – being abolished, indicating a significant weakening of labour representation within the arena of inner firms' industrial and social relations. Within the well-trying and by and large successful system of interest mediation, a vacuum appears that might endanger social peace within the firm and, consequently, just-in-time production. Today, and against the background of our experiences with the Works Constitution Act of the "old" F.R.G., we are not yet able to tell whether informal agreements can substitute for formal ones in the long run. The collective actors of industrial relations, i.e., trade unions and employer associations, and legislation do have to respond to the new situation sooner or later. This is not going to be an easy task, for in the future rules and agreements must go beyond national frameworks. They must be compatible Europe-wide. Taking into consideration the diversity of European industrial relations, the task of establishing socially agreeable industrial relations in supplier networks that spread all over Europe amounts to a "squaring of the circle".

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PRICE SETTING AND SUPPLIER SELECTION SYSTEM IN THE JAPANESE AND WESTERN AUTO-SUPPLY INDUSTRY

Sei Shōichirō

ABSTRACT

The purpose of this paper is to clarify the relationship between the efficiency of the Japanese system in controlling parts prices and the Japanese customer-supplier and labour relations. From interviews with about 150 car and parts manufacturers in Japan, the U.S. A. and Europe, the following characteristics of the Japanese parts price control system have been determined.

First, in the Japanese auto industry, the target price system is the key to control parts prices. In order to realize targets, cost reduction activities are pursued in the supplier companies. These activities can be observed nowhere in the world but in Japan.

Second, Japanese car manufacturers control the suppliers' profit margins and its utilization: most of the small profits that suppliers have managed to make must be re-invested for expansion. This is the reason why Japanese parts suppliers have expanded although they have to offer very low prices to their customers.

CONTENTS

1. Introduction
2. Price setting and selection of suppliers at the product development stage
 - 2.1. Relationship between price setting and supplier selection at the development stage
 - 2.2. Cost-reduction activities at the development stage
3. Price changes, bidding and cost-reduction activities after the start of production
 - 3.1. Price-cutting requirement every six months
 - 3.2. Price-cutting requirements in developing a new model
4. Ritualism of competitive bidding in the Western supply industry
 - 4.1. Car manufacturers' inability to control their suppliers in the Western auto industry
5. The growth of suppliers under profit control by customer companies in the Japanese auto industry
 - 5.1. Control over suppliers' profit margins
 - 5.2. Control over suppliers' applications of profits
6. Cooperative relationship between the design and purchasing departments – relationship between two kinds of division of labour
 - 6.1. Job classification of design engineers and purchasing managers reflects supplier relations
 - 6.2. Functional working division between the design and purchasing sections
7. Summary and conclusion

1. INTRODUCTION

In manufacturing industry, the price of a product is usually determined by adding a profit margin to its manufacturing cost. However, in setting prices for automotive parts in the Japanese auto industry, the target price is set first, followed by vigorous cost reduction activities until profitable production is achieved. This price-setting process can be compared with that of the European and American auto industries:

$$\begin{array}{lcl} \text{Japan} & \text{Price} - \text{Cost} = \text{Profit}^1 \\ \text{Europe and U.S.A.} & \text{Cost} + \text{Profit} = \text{Price} \end{array}$$

The objective of this paper is to elucidate how the Japanese method of price setting works in actuality, how Japanese automotive parts manufacturers have been able to reduce their costs by applying this method, how Japanese suppliers have remained under the strict control of car manufacturers, and how and why the Western system of competitive bidding has been ritualized. Another objective is to examine whether the new management system called "Japanese management" in Western companies is equivalent to management in Japanese companies.

2. PRICE SETTING AND SELECTION OF SUPPLIERS AT THE PRODUCT DEVELOPMENT STAGE

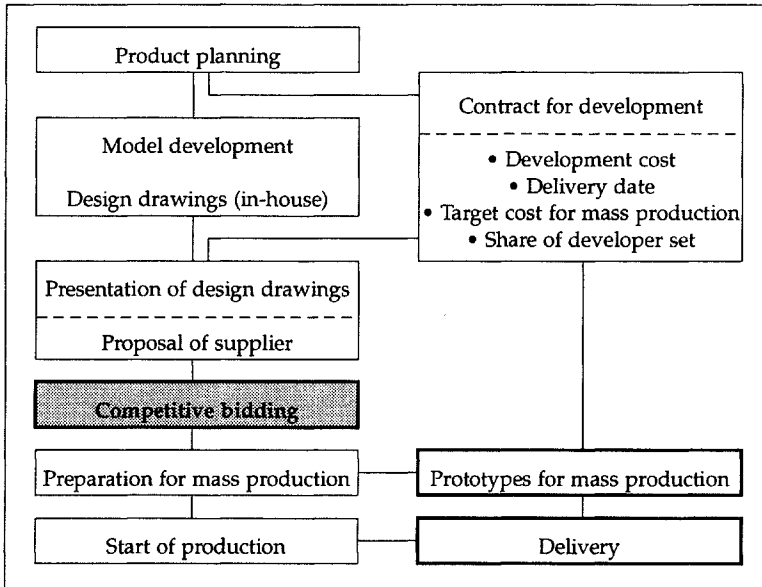
The price for a product is determined at various stages of production: development, manufacturing and sales. The price setting at the product development stage is the most fundamental one, and the method used in the Japanese auto industry is very different from that applied in the European and American auto industries. The differences are clarified below.

¹ There are various methods by which Japanese auto manufacturers put pressure on their suppliers to control parts prices. For example, Toyota Motor Co. maintains a special relationship with its supplier companies called *kanri genka hōshiki* (Control Cost System), where cost to manufacture parts is reduced while maintaining the suppliers' profit level. To realize this, Toyota supports its suppliers in their cost reduction activities.

2.1. Relationship between Price Setting and Supplier Selection at the Development Stage

The basic characteristic of the traditional method of price setting for automotive parts in European and American auto industry when they develop a new model is that the selection of suppliers and the price setting are done at the same time through competitive bidding, as is shown in Figure 1. Generally speaking, European and American auto manufacturers develop a new model in their own design sections, and their reliance through contracts on engineering companies and parts manufacturers at the design/development stages is only supplementary.² Final design drawings are completed in the manufacturers' design depart-

Figure 1: Competitive bidding and introduction of target price system in the product development stage in Western companies



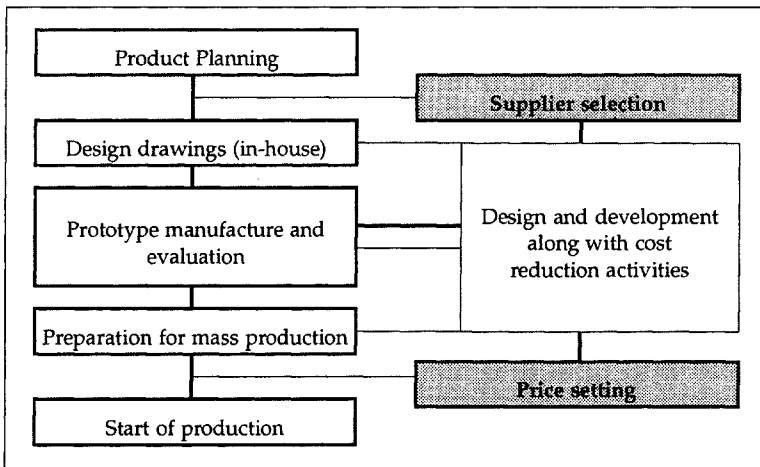
Source: Interviews in 1989 and 1990 with European and American car manufacturers and parts suppliers.

² In Western automobile companies, it is quite common to utilize engineering companies in the product development stage. For example, a typical engineering company, Porsche AG in Germany, often receives an order to develop a new engine from car manufacturers and plays a very important role in the European automobile industry.

ments, and are sent to the purchasing departments, which then announce competitive bidding.³ Parts manufacturers participate in the bidding by offering their price estimates, and the winners are awarded the title of supplier. Thus, the selection of suppliers and the estimating of prices are inseparable in the competitive bidding method.

The relationship between the selection of suppliers and price setting for a new model in the Japanese auto industry is very different. As shown in Figure 2, in Japan, suppliers are usually selected from among parts manufacturers at the very beginning of the development stage, although the prices they offer will not be determined until designs in detail are completed or right before the start of mass production.⁴ Thus, in Japan, the selection of suppliers and price setting are clearly separate from each other. In the com-

Figure 2: Supplier selection and price setting in the product development stage of Japanese companies



Source: Interviews with parts suppliers in Japan.

³ There are many sorts of design drawings corresponding to each step of development, from initial specification documents to final manufacturing drawings. Generally speaking, Western drawings are more detailed than Japanese drawings, which do not give instructions in detail. This fact is deeply connected to the nature of contracts between customers and suppliers.

⁴ Auto manufacturers become involved in development activities not only of affiliate companies but also of independent suppliers. Parts prices are determined just before mass production. But it is not unusual to launch mass production without payment agreements when price negotiation is extremely difficult.

petitive bidding method of Europe and America, the prices that suppliers can offer are controlled through competition among parts manufacturers. In Japan, as suppliers are selected before price setting, some other methods of controlling suppliers in their setting of prices must be developed.

2.2. Cost Reduction Activities at the Development Stage

Japanese auto manufacturers try to control the prices that their suppliers can offer by setting target prices at the product development stage. In planning a new model, manufacturers first identify target customers and price levels for the new vehicle, then the features of the new model and the parts to be used, and finally the suppliers. The price of each automotive part calculated from the vehicle price level is set as the target price for each and is announced to parts suppliers. Usually, these estimates exceed the target, sometimes by as much as 200%.⁵

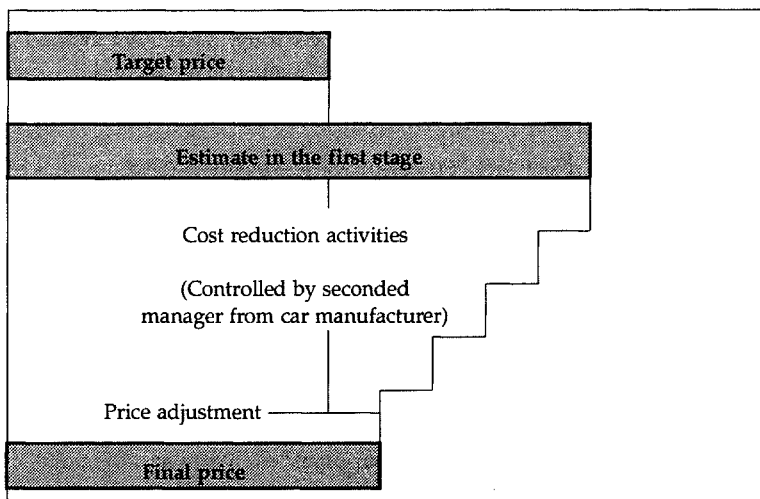
In order to lessen the gap between suppliers' estimates and the targets, specifications are reviewed to make them more practical. The main concern at this point is how to lower costs while maintaining the level of quality and functions. At the same time, research into cost reduction in terms of production technology is undertaken by re-examining materials, the shape of the original design, processing and assembling methods, etc. Therefore, in Japan, suppliers are chosen at the initial stage of development, and, almost simultaneously, cost reduction activities begin and continue until prices are finally determined. Practical application of this method is different for each auto manufacturer in Japan; in the case of company A, a representative auto manufacturer, for example, a staff member in charge of relations with suppliers is sent to work in the development section of the supplier for a year or more, directing cost reduction activities there, as shown in Figure 3.

In Europe and America, such cost reduction activities based on target prices are unrealistic, because prices are already set when the suppliers are selected. European and American manufacturers are now beginning to see the advantages of the target price method, and in many cases they set the targets for mass-production prices when they draw up development contracts with their suppliers.⁶ However, this method still works within the framework of contracts (see Figure 1) and is different from Japanese practices.

⁵ The custom of giving target prices to suppliers is maintained not only in automobile industry but also in other industries such as the case in electric and electronics industries.

⁶ In Western countries, price reduction requirements are thus included in the contract. But in Japan, the contract generally does not include price or cost reduction requirements.

Figure 3: Process of reaching target price in Japanese companies



Source: Interviews with Japanese parts suppliers.

3. PRICE CHANGES, BIDDING AND COST-REDUCTION ACTIVITIES AFTER THE START OF PRODUCTION

3.1. Price-Cutting Requirement Every Six Months

In Japan, prices of parts are determined at the last moment in the development process, and payments to suppliers are made according to price contracts. However, ever since the first "oil shock", it has become almost customary in Japan for auto manufacturers to request price cuts every six months, in response to which suppliers discount their prices.⁷ Characteristics of the practical application of this custom are as follows:

- 1) There are two kinds of price cutting methods; one is the pay-back system in which the supplier company must pay some amount as the difference between the contract price and the discounted price from

⁷ The actual forms of the semiannual price reduction differs from company to company. In order to give the total image of the Japanese system, I have described these various ways here in parallel.

the already paid sales amount in the past six months, and the other is the price discount for the next six months.⁸

- 2) The price cuts demanded by manufacturers are not broken down into prices for individual parts but rather are a total percentage of the suppliers' amount of sales.
- 3) Parts suppliers may pay total amounts as the difference between contract price and discount price, and the total amount is then broken down into prices for individual parts by the supplier companies.
- 4) The discount percentages for each component are examined part by part and the prices of special parts which are produced in small quantity or just before the end of the model year are often drastically reduced.⁹
- 5) Generally, as a price discount has a major influence on the next price negotiations, some supplier companies pay lump sums so as not to lose price negotiation capability in the future.¹⁰
- 6) As this price-cutting process has become customary, some auto manufacturers pay with, for example, a 5% discount on the contract prices from the very beginning of production.

As the above outline of the process shows, production cost is not a starting point for price negotiation; rather, the price cutting comes first, and as a result cost reduction activity becomes necessary. If this kind of unreasonable discounting is to be endured, cost reduction must be vigorously pursued on an everyday basis.¹¹ And cost reduction capability is the sup-

⁸ Of course, as these kinds of paybacks are conducted *sub rosa*, it is impossible to obtain empirical evidence from companies. These descriptions are based on my interviews with Japanese parts suppliers and transplants in the U.S.A. in 1989.

⁹ One company, for example, had to reduce the price of parts whose remodelling is expected soon, from 420 Yen to 20 Yen, another company lowered the price of a high-grade product manufactured in low quantity from 1.500 to 1.300 Yen.

¹⁰ To demonstrate their cooperation in price cutting, customers sometimes accept suppliers. When the supplier has sufficient technological capability and the customer does not have enough cost analysis capability, the customer may be forced to accept the suppliers' offer without effective controls.

¹¹ One of the characteristics of Japanese cost-reduction activities is that they are controlled by the company's cost accounting section. In Western countries, the cost accounting section only analyzes the results of accounting and points out the problems it has found. The cost accounting section never is directly involved in cost reduction activities. Such difference is related to differences in job classification and work organization between the Japanese and Western industrial societies.

plier's most important asset in order to maintain a steady relationship with a car manufacturer.¹²

3.2. Price-Cutting Requirements in Developing a New Model

An opportunity for price alteration also arises when a forthcoming model is put on the development agenda. In general, parts prices for the new model are not set from scratch but are determined on the basis of those for an older model. In such a case, prices of new parts are set according to their design differences in comparison with the older ones. To put the matter more concretely, differences in materials, the processing stage, etc., must be distinct to give a good reason for higher prices for new parts. If auto manufacturers do not change their parts specifications for the new model and parts manufacturers just follow the old ones, the parts for the new model must be supplied at the same, old prices. Therefore, if parts suppliers want to raise their prices, they must try hard to make design changes persuasive enough for manufacturers to accept. In fact, parts manufacturers constantly endeavour to improve their products, which results in the advancement of their technology. Thus the development of new technology proceeds along with cost reduction activities in the Japanese auto industry.¹³

Price reduction requirements for parts are also given to the suppliers at the time of development of a new model. Auto manufacturers set especially low target prices for new models in order to reduce the manufacturing cost of new models and parts suppliers make every effort to realize

¹² Of course, even in Japan, the essence of competition is price. However, what is important here is cost reduction capability rather than each individual price. In order to maintain a steady business relationship, suppliers have to meet the requirements of customers. The customer company always watches over its performance and tries to control its suppliers' management strategy whenever necessary. Thus, a Japanese business relationship can be called an "inter-company relationship", which is very different from that of Western companies built upon "contracts on an individual commodity base".

¹³ The meaning of "technology" used in Japan has to be re-examined. Generally, Japanese manufacturers have a special section called "manufacturing engineering" (*seizō gijutsu*) separate from "process engineering" or "production technology" (*seisan gijutsu*) section. This manufacturing engineering section usually deals with *kaizen* (improvement) activities mainly related to work organization and the improvement of production processes. Of course, these activities always deal with technological matters and sometimes are based upon a newly developed process technology. However, the main purpose of these activities is to save labour; thus, Japanese technical innovation places strong focus on the development of labour-saving technology.

these targets. If, however, supplier companies want to maintain or increase their profits, they have to develop new products with new ideas or technologies. Higher prices or added value can be realized when these ideas or technologies are accepted by manufacturers' design engineers. Thus, development of new products or production technologies in supplier companies becomes necessary under severe price-cutting pressure from manufacturers.¹⁴

4. RITUALISM OF COMPETITIVE BIDDING IN THE WESTERN SUPPLY INDUSTRY

In the European and American auto industries, systematic cost reduction activities like those in the Japanese industry can rarely be observed. Of course, prices once decided through competitive bidding are revised every year, and auto manufacturers try to cut prices by repeating competitive bidding. Until very recently, however, the position of parts manufacturers has been so strong that, paradoxically, the prices have begun to rise. The reason why this happens will be given below.

4.1. Car Manufacturers' Inability to Control Their Suppliers in the Western Auto Industry

Two cases will illustrate the problems related to exercising price control over suppliers in the Western automobile industry.

Case 1: Inability to Control Parts Prices in American Industry

In Western countries, customer companies very often cannot reject suppliers' demands for price increases. In one case, an American car manufacturer sponsored competitive bidding based on rough design drawings and rough specifications. An American parts manufacturer joined this bidding with extremely low price estimates without concrete technical backup, in order to undercut the price offered by a Japanese transplant. The order was given to the American company. In producing prototypes, however, this supplier company had to change its original specifications and design

¹⁴ In recent years, improvement in manufacturing engineering has come to an end, making more fundamental examination of manufacturing processes and product technologies necessary. Thus, more attention is given to further improvement of product technologies or re-examination of the entire manufacturing process from original design drawings to mass-production process. This is the reason why simultaneous (synchronized) engineering between the design drawing and the process engineering sections has become even more important.

drawings owing to the parts' lack of sufficient strength and function, and was likewise forced to request price increases. In this case, the customer company could not reject this request and the final price became higher than that offered by the competitors in the original bidding.¹⁵

Case 2: Change of Purchase Prices from British Parts Supplier

The case of one British company illustrates an actual situation of supplier control as it is resulting from a traditional customer-supplier relationship in a European company. Table 1 shows the percentage of price reduction in the British company. In this company, when half the employees were laid off in 1983, all members of the purchasing section were made redundant. To reorganize the section, one engineer was moved to the position of chief buyer. As an engineer who could evaluate processing methods and price levels of each part, he found that all parts were too expensive. He began to examine all prices and design drawings and started negotiating to reduce the prices with his suppliers. As a result, 30 to 40% reductions of parts prices for 200 items were realized within six months.¹⁶

Table 1: Reduction of purchase price: British parts supplier (in 1983)

Level of new price	No. of parts
+ 21 %	1
+ 2 %	1
- 0 - 9 %	9
- 10 - 19 %	8
- 20 - 29 %	13
- 30 - 39 %	6
- 40 - 49 %	8
- 50 - 59 %	8
- 60 - 69 %	5
- 70 - 79 %	4
- 80 - 89 %	1
- 93 %	1
Total no. of parts	65

According to interviews, the total number of the items whose prices were reduced was about 200.

Source: Unpublished document of a British parts manufacturing company.

¹⁵ From my interview in 1989 with the Japanese transplant in Tennessee, U.S.A.

¹⁶ From my interview in 1982 with a British parts manufacturer conducted together with Prof. Masayoshi Ikeda of Chūō University, Tōkyō.

Several Factors to Ritualize the Competitive Bidding

The basic reasons for the difficulties in controlling the parts prices are as follows: Generally speaking, supplier companies want to maintain sovereignty in setting their prices; even if they are small or medium-sized companies, it is common to add some percentage of profit (1% or 2% higher than the interest rate) to the manufacturing costs. It is also quite common to keep orders, receivable from one major customer at less than 30% of total orders, to avoid being controlled by big companies. As a result, customers and suppliers are independent from each other in Western countries in a way that is completely different from the situation in Japan.

Another factor in the ritualization of competitive bidding is the existence of an agreement between car and parts manufacturers. For example, in case of the American auto industry, assemblers purchase parts from in-house parts-producing divisions even if their price is 5% higher than that of outside suppliers. Also, in the European auto industry, as the number of parts suppliers has been reduced, it is quite easy for parts suppliers to reach "gentlemen's agreements" to maintain prices.¹⁷

Big parts manufacturers in the Western auto-components industry are sometimes bigger than car manufacturers and are suppliers to the aerospace, military or electronics industry as well, with key technology in engines, transmissions, brakes and so on. It is impossible for car manufacturers to control parts prices and select suppliers with a free hand because of their monopolistic positions.¹⁸

Revision of Traditional Price-setting Practices

European and American auto manufacturers have just begun to improve their traditional price-setting practices by introducing a long-term contract system, under which they encourage facility investments on the part of parts manufacturers and try to realize systematic price reductions.¹⁹ As is shown in Figure 4, they try to make contracts with their suppliers on a long-term basis, ranging from 3 to 5 years, or cover-

¹⁷ From my interview in 1990 with Japanese transplants in Spain.

¹⁸ From my interviews in 1990 with German auto manufacturers and suppliers.

¹⁹ Pricing policies of Western companies differ from that of Japanese. In Western companies, prices differ according to the cost. Therefore, when a product is produced with old and depreciated equipment, its price becomes very cheap. This pricing is economically quite logical, but it tends to result in the lowering of manufacturing capability and the technological level. Here, we can observe the fundamental contradiction between economical thinking and manufacturing capability or between short-term and long-term competitiveness.

ing the entire period of the life cycle of a specific model. An annual price discount ratio is usually promised in these long-term contracts. However, this practice again works on the basis of contracts and thus is different from the Japanese price-cutting custom, in which contracts are almost insignificant.²⁰

Figure 4: The discounting in long-term contracts in European and American companies

Requirement for bidding	5-year long-term contract with 5% annual discount, 25% in total
Response from the suppliers	5% discount for the initial year, 2% for the second and 1% annually thereafter
Competitive bidding	Contract based on the agreed-upon discount plan

Source: Interviews with parts suppliers in Europe and the U.S.A.

5. THE GROWTH OF SUPPLIERS UNDER PROFIT CONTROL BY CUSTOMER COMPANIES IN THE JAPANESE AUTO INDUSTRY

In addition to setting strict price reduction requirements for parts manufacturers, Japanese auto manufacturers go as far as to control the profit margins of their suppliers. The reasons the Japanese parts suppliers have been able to expand under such severe conditions are discussed in the following.

5.1. Control Over Suppliers' Profit Margins

As has already been explained, Japanese parts manufacturers generally try to keep costs at a minimum. However, they do not do this voluntarily in order to gain profits. Rather, their strict and systematic cost control

²⁰ Again, the important point is not how low the price is but how the price is reduced. For example, a famous purchasing manager of one German car manufacturer realized a 10% price reduction on average; his method was placing strong pressure on his suppliers, telling them that he would replace them if they were not cooperative. In another case, a British car-manufacturer introduced a new style of contract, which set a price reduction target and exacted a promise to cooperate with customers' purchasing policy. Unlike Japanese auto manufacturers, however, they never tell the suppliers how to reduce costs, and the latter simply axe prices in the end in order to fulfill the contract.

activities are passive and defensive reactions against the price reduction demands forced upon them by their customers. In other words, price reduction is not the result but the cause of cost reduction.

Table 2: Margin ratios of Japanese, American and European companies

Country	Company	Margin-ratio ¹	Profit-ratio	Ratio of SG&A ²
Japan	A	15 %	5 %	10 %
	B	13 %	5 %	8 %
	C	20 %	10 %	10 %
	D	10 %	–	–
U.S.A.	E	40 %	15 %	25 %
	F	54 %	–	–
	G	80 %	–	–
Europe	H	27 %	9 %	18 %
	I	20 %	7 %	12 %
	J	–	8 %	–

¹ Margin ratio is the total of profit margin and SG&A.

² SG&A: Sales, general and administration cost

³ Manufacturing cost = 100

(Manufacturing cost include only direct production costs as materials, parts, depreciation equipment and direct labour cost. Excluded are all indirect costs.)

Source: Interviews with Japanese, American and European companies.

Cost reduction is not sufficient for auto manufacturers to realize the prices they want: they must control the component of prices, namely profit margins. As shown in Table 2, the maximum margin ratio (service general & administration cost (SG&A) + profit margin) that Japanese parts manufacturers take is about 15% (10–13% on average), of which of 8–10% is SG&A and 5–6% is gross profit margin.²¹ In the case of European parts manufacturers, the margin ratio is 20–30%; with 10–20% SG&A and 8–9% profit margin. Interviews with American parts manufacturers reveal that in the U.S. margin ratios rise as high as 30–40% in many cases.²²

²¹ From my interviews in 1989 with Japanese parts manufacturers and the managing director of a Japanese car manufacturer.

²² It is quite difficult to get exact figures for profit margins and also to compare these figures, because there are different ways to define the profit margin. The figures I have cited are rough ones I have collected in my interviews with Japanese transplants and American parts manufacturers in 1989, with German manufacturers and parts suppliers in 1990, and with British small companies in Birmingham and Coventry area at the beginning of the 1980s.

5.2. Control Over Suppliers' Applications of Profits

Obviously, the profit margin of Japanese parts manufacturers is kept at the lowest level. And yet Japanese parts manufacturers have realized continuous growth and expansion in the past. This seemingly contradictory mechanism has worked out only because Japanese auto manufacturers have not only suppressed profit margins but also directed their suppliers in how to use this narrow margin: most of the small profits that suppliers have managed to make are re-invested for expansion. As explained above, Japanese auto manufacturers' demands for lower prices are very strong and continuous. Therefore, to satisfy them, parts manufacturers must rely on the best and newest facilities and equipment; that is, they must always invest in streamlining, energy and labour saving, and so on. The complaint often made by Japanese parts manufacturers, "We are always short of cash although we always make a bit of profit" – vividly describes the situation they face.²³

As a result of the continuous investment in facilities and equipment extorted from such a small profit margin, solid increase of production volume is secured in the Japanese auto industry. Remembering that growth is another name for the expansion of production and is itself a form of capital accumulation, we can thus conclude that the profits of Japanese parts manufacturers are expressed in the form of their growth and expansion. Thus, simple comparison of profit ratio figures does not suffice in the attempt to understand the profit-making mechanism of Japanese and Western companies.

6. COOPERATIVE RELATIONSHIP BETWEEN THE DESIGN AND PURCHASING DEPARTMENTS – RELATIONSHIP BETWEEN TWO KINDS OF DIVISION OF LABOUR

As seen above, there is a difference between Japanese and Western supplier relations, which ought to relate to the structure of each country's intra-company division of labour. The relations between two kinds of division of labour will be examined here.

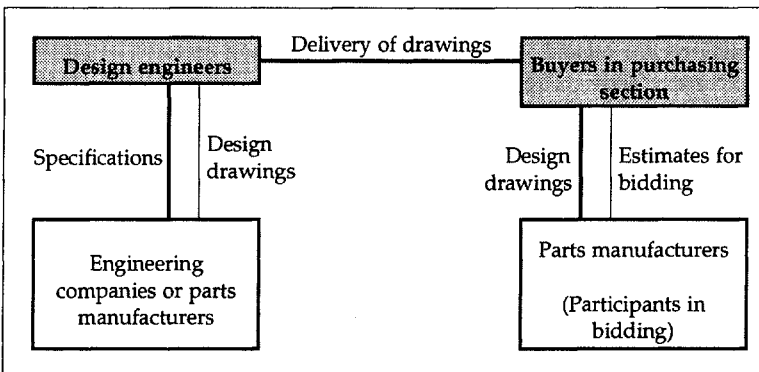
²³ From my interviews in 1989 with Japanese transplants in Ohio, U.S.A.

6.1. Job Classification of Design Engineers and Purchasing Managers Reflects Supplier Relations

Generally, in Western nations, companies present only price estimates in competitive bidding; they do not present the cost structure that makes up the price. Cost structure is proprietary information for each company and is not considered open to the public. When a Western company tries to select a supplier by comparing estimates, the buyer first examines all the materials presented by the companies participating in the bidding and requests additional materials, if necessary. By this procedure, the buyer does not try to clarify the price and cost structures but only tries to compare different companies on an equal basis.

In Western companies, the buyer is a clerical worker who basically selects suppliers on the basis of price estimates and draws up purchase contracts, he does not analyze costs. Meanwhile, designs are planned by engineers who are very much technology-oriented. Therefore, purchasing and designing are two different kinds of work (Figure 5). In the Western custom, the buyer cannot step into the technological field even if he wants actual proper manufacturing costs, because this might be considered overstepping his authority. In the Western nations, the same phenomenon can be observed in the relationship between customers and suppliers: design work based on technological standards is pursued independently from the selection of suppliers and the determination of prices that are based on competitive bidding (cf. Figure 1).

Figure 5: Division of labour between buyers and design engineers in Western companies



Source: Interviews with European and American companies.

Recently Western companies have begun to introduce cost tables following the example of the Japanese method of selecting suppliers. For example, company B in Germany has developed its own cost table based on materials of the German Automobile Manufacturers' Association (VDA), and asks suppliers to fill it in. However, only a few suppliers of small and medium size, who must accede to the requests of car manufacturers, might present their own cost tables.²⁴

In another case, a new job junction which mediates between the design and purchasing sections has been introduced. For example, company B in Germany has set up a new position called "economic-engineer". This is a single-status position whose incumbent coordinates design and purchasing. In still another company the buyer participates in negotiation with the suppliers at the design stage.²⁵ However, the buyer might not be able to control such negotiations effectively because traditionally engineers enjoy high status in the West.

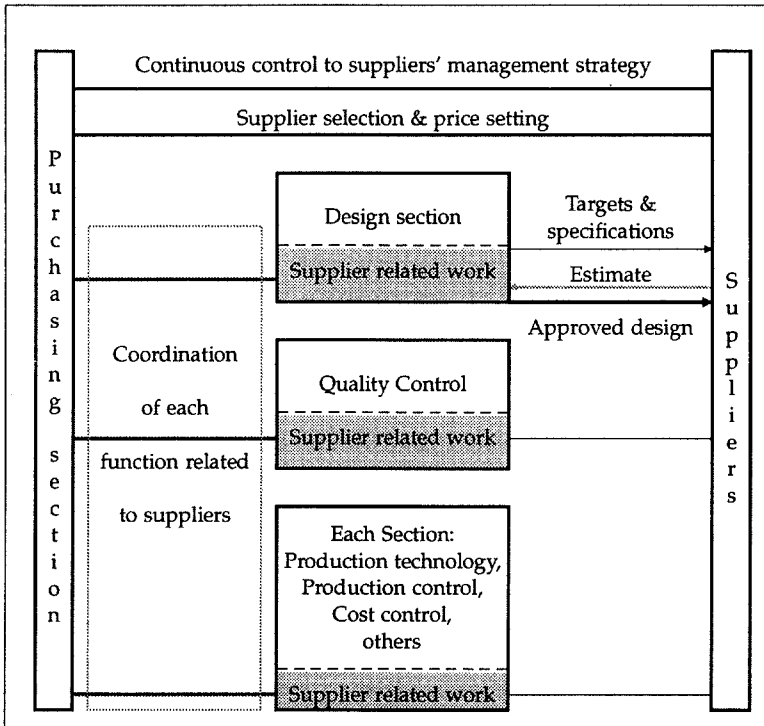
6.2. Functional Working Division Between the Design and Purchasing Sections

As in Western companies, the purchasing sections of Japanese companies also engage in the selection of suppliers and conclusion of price contracts. However, as far as ordinary work is concerned, the main assignment of the purchasing section in Japan is to coordinate purchasing functions, which are dispersed among various sections in the company (Figure 6). For example, the development section controls purchasing related to parts design, the quality control section controls the quality of purchased components, and the cost accounting section controls parts prices; all these functions are related to purchase. The purchasing sections of Japanese auto manufacturers receive information about suppliers' performances and attitudes; if a problem occurs, the section quickly moves to coordinate policies and also to check on and control suppliers' managements and policies. In short, the sections work in coordination.

²⁴ From my interviews in 1990 with an engineering company and a car manufacturer in Germany.

²⁵ From my interviews in 1990 with German car manufacturers and the sales office of one Japanese parts supplier in Germany. We can find the same kind of reorganization of purchasing sections in other auto manufacturers. For example, one French car manufacturer reorganized the purchasing division and started a new training programme for buyers in the late 1980s (from my interview with a French automobile company).

Figure 6: Functional working of purchasing section in a Japanese automobile company



Source: Interviews with auto manufacturers.

In this style of cooperative working, every section must coordinate with every other by sharing its know-how. For example, the design section must comply with various requests, such as price targets presented by the cost accounting section, quality targets set by the quality control section, and delivery targets set by the production control section. One company, a representative Japanese car manufacturer, calls this style of cooperative working "functional working", and holds "functional meetings" at which the views of all sections are coordinated and adjusted.²⁶ In such a job-sharing type of organization, each section must understand the objectives of all others and must try to actualize them. In practice, this

²⁶ From my interview in 1991 with a Japanese car manufacturer.

means that each section must do everything necessary to win the competition for customers, and in the process begins to be deeply involved in the work done by other sections. This involvement is further related to the fact that the work of different sections is simultaneously pursued at the design and development stages. As work overlaps, the relationship of direction-giving and receiving is complex.

As should be clear from the above, the division of labour between designing and purchasing in Japanese companies is completely unlike that in Western companies. This difference can also be observed in the division of labour between customer companies and their suppliers.

7. SUMMARY AND CONCLUSION

The relationship between auto manufacturers and their suppliers in terms of the selection of suppliers and the method of price setting can be summarized as follows: The essence of price-setting in the Japanese auto industry lies in the target prices set by auto manufacturers at a very early stage of product development. In order to realize the targets, parts suppliers pursue cost reduction consistently from the development stage to the manufacturing stage. These activities of necessity accompany innovations in the fields of production and product technologies, which not only are utilized to develop the next model but are also accumulated to enhance competence of the parts manufacturers.

Cost reduction activities of this kind can be observed nowhere in the world auto industry except in Japan, where the selection of suppliers and price setting are separated at the product development stage. This means that the customer-supplier relationship is the key to successful cost reduction activities like those of the Japanese. Auto manufacturers consistently maintain close ties with their suppliers, and therefore continue to choose them as suppliers. Again, as their ties are so tight-knit, auto manufacturers can set target prices, and suppliers in turn must engage in energetic cost-reduction activities on a company-wide basis to satisfy these targets. Parts suppliers make strenuous efforts to meet the unreasonable price reduction requirements of their auto manufacturer customers, and technological innovations follow these efforts.

Japanese car manufacturers control not only the cost of products but also the profit margins of supplier companies. Obviously, the profit margins of Japanese parts manufacturers are kept at the lowest level. And yet these suppliers have achieved continuous growth and expansion.

sion in the past. This seemingly contradictory mechanism has materialized only because Japanese auto manufacturers have not only suppressed profit margins but also directed the use of this narrow margin: most of the profits that suppliers have managed to make are re-invested for expansion.

The precise mechanism of Japanese parts manufacturers' profit-making is yet to be clarified. Japanese parts manufacturers usually begin their production of individual parts without profits or with deficits in many cases, and then gradually acquire profits through mass production and rationalization. This approach is not viable in their overseas transplants, where figures for interest, payment, re-investment and individual profit ratios need to be calculated and rationally explained at a time.²⁷ The way Japanese parts manufacturers turn deficits to profits in the process of production is a key question that remains to be answered. Here, I would like to close my article by only suggesting that the answer probably will be found in the analysis of "cost reduction activities" such as QC circles, participation in rationalization and *kaizen* activities by all employees, and in-house improvement and production of machinery. At the same time, cooperation by machine and material suppliers will have significant importance for parts manufacturers in recouping investment costs.

This special customer-supplier relationship in the Japanese auto industry is deeply related to the division of labour between the design and purchasing sections. While design and purchasing are separated completely in Western companies, the coordination of the two jobs is one of the most important characteristics in the Japanese auto industry, as it is in most Japanese companies. This system of cooperation, called "functional working", works like a multiple-layered printed circuit board (PCB) where work is pursued simultaneously. As jobs overlap, the relationship of direction-giving and receiving is complex.

In conclusion, the uniqueness of Japanese-style management lies in the fact that suppliers not only obediently accept unreasonable requests from auto manufacturers but also endeavour to overcome these requests by embracing them as their own targets. Two kinds of division of labour – the intra-company relationship between design and purchasing sections, and the inter-company relationship between customer and supplier – in-

²⁷ From my interviews with many Japanese transplants in the U.S.A. and Europe in 1989 and 1990. One managing director of a holding company of Japanese transplants in Germany mentioned the difficulty in transferring the Japanese style of management to foreign countries.

fluence each other. And all of these are combined under the concept of "economic growth". This organizational pattern functions most effectively in severe international competition.²⁸

²⁸ I would like to express here my heartfelt appreciation to Professor Norbert Altmann and other members of the Institute for Social Studies (ISF) in Munich, and to Mr. Helmut Demes of the German Institute for Japanese Studies in Tōkyō. I would also like to thank many interviewees at about 150 automotive and parts companies which I visited during my stays at MIT and ISF from April 1989 to September 1990.

TOWARDS THE FORMATION OF LABOUR STANDARDS

LABOUR STANDARDS IN THE INTERNATIONAL ECONOMY

CHALLENGES AND PERSPECTIVES

Werner Sengenberger

ABSTRACT

The internationalization of the economy is accelerating, spurred by the activities of multinational enterprises, emergent trading blocs aimed at supra-national economic integration, and homogenizing consumption patterns. In contrast, labour institutions and labour market regulation remain largely constituted on the national scale and below. Hence, is there an increasing disparity between the economic and social organization of the labour market at the international level? If so, what would the implications be? These are the key questions raised in the paper.

In addressing the issues it is investigated how much the existing system of the International Labour Organisation (ILO) of setting and controlling labour standards is apt to channel international activities in constructive ways. While in principle the ILO machinery can regulate international competition, it appears hampered today by insufficient power for standard enforcement, and also by the widening cross-national gap in productive power, real income, and wealth. This makes it exceedingly difficult to impose universal worldwide common substantive standards, such as common minimum wage, or common minimum age for employment, or common minimum safety standards.

Nevertheless, progress in standard setting, and internationally co-ordinated labour policies, would be essential in order to diminish the gap between rich and poor countries, and to permit internationally balanced and sustained development. The ILO philosophy, according to which "poverty anywhere endangers prosperity everywhere" is as valid as ever before.

CONTENTS

1. Introduction
2. The Internationalization of the economy
 - 2.1. Growth of trade and foreign investment
 - 2.2. The rise of the multinational enterprise
 - 2.3. Are we heading towards globalization?
3. Labour standards as an instrument for regulating international competition
 - 3.1. Labour standards defined
 - 3.2. International labour standards and the ILO
 - 3.3. Labour standards and multinational enterprises
 - 3.4. Linking labour standards and trade

4. Labour standards as a contested terrain
 - 4.1. Objections to labour standards
 - 4.2. Labour standards as economic opportunities
 5. Conclusions
- Bibliography

1. INTRODUCTION

Signs abound that the industrial landscape is changing. Markets and production systems are moving in a significant way beyond national boundaries, and to some extent also within national borders. The increasing importance of multinational enterprises, transnational strategic alliances, transnational subcontracting and sourcing of production and services, and cross-national regional economic integration signal the trend towards an internationalized economy.

In contrast, labour institutions and labour market regulation remain largely constituted on the national scale and below. It is at the level of the nation-state, or subnation-state, that pay, employment rules, working conditions, occupational health and safety, and social security are legislated and executed.

The growing incongruity between the economic space and the social space of organization creates a major challenge to economic, political and social stability. As companies and capital move ever more freely to where they expect the best returns, and large enterprises grow ever bigger and more powerful – with the sales of some of the giant corporations well exceeding the gross national product (GNP) of small nations – national governments and national labour organizations tend to be deprived of the sovereignty to govern economic behaviour within their borders. They tend to lose part of their autonomy of action. Such a situation is likely to throw national social “models”, and national systems of labour institutions, into the arena of intensified international competition. It could, in the worst case, provoke economic war, followed by harsh and destructive social conflict, and a new upsurge of nationalism. But it could, if properly handled, also lead to new accords on the international plane, enhanced mutual understanding in a more cosmopolitan world, better resource utilization and the resolution of such pressing problems of international character as poverty and environmental pollution.

To meet the challenge constructively, labour institutions will have to adjust. In order to be effective, labour organizations and labour market regulation have to be coextensive with the size of the market. Otherwise,

labour organizations can be whipsawed, labour standards undercut, and free riders encouraged. Fears of a downscaling of labour standards, or "social dumping", as the trade unions call it, are being voiced in the European Community, which is about to enter a single European market. While trade union organization and collective bargaining are still largely national, and progress towards the European Social Charter of Community-wide social standards is slow, economic integration is moving much faster. Nevertheless, the discrepancy in Europe looks minor in comparison with other regions which are taking initiatives towards regional economic integration. In every one of these regions labour market organization is far from matching even in a remote sense the degree of internationalization of production and trade relations.

This paper will address the gap in the territorial organization of business and labour. After giving a brief historical account of the advancement of international economic integration as far as the present day, it will analyze the institutional responses, actual and potential, to reconcile labour policy, and labour standards in particular, with the expansion of markets and production, and the changing nature of competition.

2. THE INTERNATIONALIZATION OF THE ECONOMY

While there has been trade over shorter and longer distances in various parts of the world since time immemorial, it has nevertheless been the case in the past two centuries that the internationalization of the economy has progressed at a rapid pace. Yet, when we say that, we immediately need to recall that national boundaries are of fairly recent historical origin as well. The "nation state" in any version recognizable to us today is, as Eric Hobsbawm showed, no older than the American Constitution and the French Revolution, both dating from 1789. In a number of Western countries, the nation-state was rising to significance as a unit of political, economic, and social organization in the nineteenth century when national economic activity was used by Hamilton in America, Bismarck in Germany, Japanese rulers in charge of the Meiji restoration, Garibaldi in Italy, and others, to put muscle behind their political ambitions (Hobsbawm 1990). In many other quarters of the world the nation state is much younger still. More than half of the existing states are less than 40 years old. Only with the existence of the national economy can we logically speak of internationalization.

2.1. Growth of Trade and Foreign Investment

The upsurge in economic activities across national borders is reflected in the growth of foreign trade and investment. The value of exchange between the major trading nations increased from 1.5 billion dollars in 1800 to about 4 billion in 1850 to 20 billion in 1900 and 40 billion in 1913, showing a clear trend of acceleration in the second half of the nineteenth century (Levy 1931). Whilst the rate of growth was again more moderate between the world wars, a new big push came after World War II. In 1990 world-wide trade in goods and services amounted to some \$ 4 trillion, a 13-fold increase in real terms from 1950. The inter-penetration of markets is indicated by the fact that the export rate rose faster than the volume of production. World production in the period 1950 to 1984 increased roughly by factor 5, whereas total exports rose about 9-fold, and exports of manufactured goods even 15-fold (GATT 1987: 14). Market integration is further signalled in the increased trade reliance of national economies. Between 1967 and 1986 the share of trade in GNP doubled in a number of important countries, and reached levels of almost 60% in the Netherlands, 41% in the United Kingdom and 32% in the Federal Republic of Germany (Table 1).

Table 1: Share of exports in GNP for selected countries and selected years (in%)

	1967	1973	1980	1986
The Netherlands	39.5	48.4	59.8	58.9
United Kingdom	22.2	31.7	38.9	41.2
Germany	21.3	23.5	30.5	32.1
France	14.7	20.2	27.1	26.8
Italy	13.8	19.2	25.3	22.1
Mexico	10.4	10.2	15.6	19.6
Brazil	6.8	10.4	12.5	11.7
Japan	10.3	10.8	15.5	11.1
United States	5.7	8.0	12.8	10.6

Source: de Granat (1990: 9).

The opening of the economies is also apparent from international investment. There are many ways in which capital can move across borders, including: foreign direct investment (FDI), which is linked to multinational companies setting up subsidiaries abroad; indirect (portfolio) investment, where shares are bought in an undertaking abroad; borrowing of foreign capital; non-equity forms of investment, such as licensing and

franchising; and official development assistance (ODA). All affect in one way or the other, in both the source and the recipient country, the transfer of technology and productivity, and future employment opportunities.

Table 2: Outflows of FDI from five major countries 1981–1987 (in million U.S. \$)

Country	1981	1982	1983	1984	1985	1986	1987
France	4,583	2,844	1,700	2,134	2,227	5,339	9,080
Germany	3,868	2,473	3,186	4,346	4,904	9,597	9,129
Japan	4,917	4,526	3,603	5,945	6,427	14,336	19,396
United Kingdom	12,118	7,156	8,047	7,956	10,982	16,593	25,745
United States	12,704	6,286	3,509	4,798	13,823	22,494	41,897
Total above	38,190	23,285	20,045	25,179	38,363	68,359	105,247
all countries	54,006	32,546	36,465	41,993	58,366	92,360	134,898

Source: de Granut (1990: 16).

The stock of estimated foreign direct investment increased worldwide from 14 billion dollars in 1914 to 66.7 billion in 1960, and 380 billion dollars in 1978 (de Granrut 1990). FDI flows have accelerated in the past two decades. In the last three years of the 1980s, FDI flows measured in 1980 dollars were more than 100 billion a year, ten times as much as they had been in the first three years of the 1970s (again in 1980 dollars) (*The Economist*, Dec. 22, 1990). Table 2 demonstrates that levels of outflow of FDI climbed enormously in the five largest Western industrialized countries in the 1980s, which account for about three-quarters of total foreign investment. The annual flow of FDI from Japan had increased ten-fold at the end of the 1980s in relation to the beginning of the decade. In France, the equivalent number was seven-fold. In the 1980s, the United States became the major host country for investments, while at the same time the U. S. increased its investments in Europe at an accelerating rate (Campbell 1991).

2.2. *The Rise of the Multinational Enterprise (MNE)*

The pivotal driving force behind the internationalization of the economy is the MNEs. They account for the bulk of foreign direct investment by establishing facilities abroad, and a significant component of foreign trade is made up of trade between the parents and the subsidiaries of MNEs. In a real sense, multinationals have become the private regulators of borderless economies.

According to ILO sources, at the beginning at the 1980s MNEs employed at least 65 million workers worldwide, of whom 43 million were in the countries where the parent enterprise was located. A further 15 million were

in industrialized countries and only 7 million in developing countries (ILO 1981). These figures say little, however, about the strategic role of the multis for the process of internationalization and globalization in relation to the transfer of technology and managerial techniques and skills. In the last two decades there has been a change in the competitive strategy of the multinationals. Particularly in the 1970s, the multinationalization of manufacturing proceeded through international subcontracting and outsourcing. Parts of production were located in developing countries with lower labour cost levels to reduce variable costs. This contributed to the growth of intra-industry trade, and created an international division of labour, as well as new investment and technology links, between countries of the North and the South, implying for the latter a kind of export-oriented industrialization. For instance, the initial phase of growth of the “four dragons” – the Republic of Korea, Taiwan, Hong Kong and Singapore – was largely built on the use of cheap, unskilled labour for the manufacturing of parts and components by subsidiaries of foreign-owned MNEs. This phenomenon sparked a theory on the “new international division of labour” (NIDL), according to which massive outmigration of capital would generate structural unemployment in the OECD world, and exploit workers in the Third World. Therefore, in order to make it work, the existence of global labour and capital markets and a global labour reserve army would be imperative (see, e.g., Froebel et al. 1977).

In the 1980s, various events induced enterprises to alter their strategy. Variable-cost competition was superseded by fixed-cost competition. Growth came to be driven by the spread of cost-reducing and quality-enhancing advancements in the electronics-based industries (semi-conductors, telecommunications, computers, consumer and industrial electronics) which swept increasingly into production processes of other manufacturing industries, such as the automobile industry, and into the service sector. Together with the reduction in the cost of air travel and shipping – partly due to deregulation – information could now be carried by electronic impulses in less than seconds around the globe, enabling and accelerating globalization on a higher level. Moreover, the new technologies generated a new wave of automation, and this put pressure on producers to cut fixed costs by boosting sales and broadening markets. The more labour-intensive operations started to be farmed out to a second tier of newly industrializing countries (NICs), such as Thailand, Malaysia and other ASEAN countries that offered even lower labour costs.

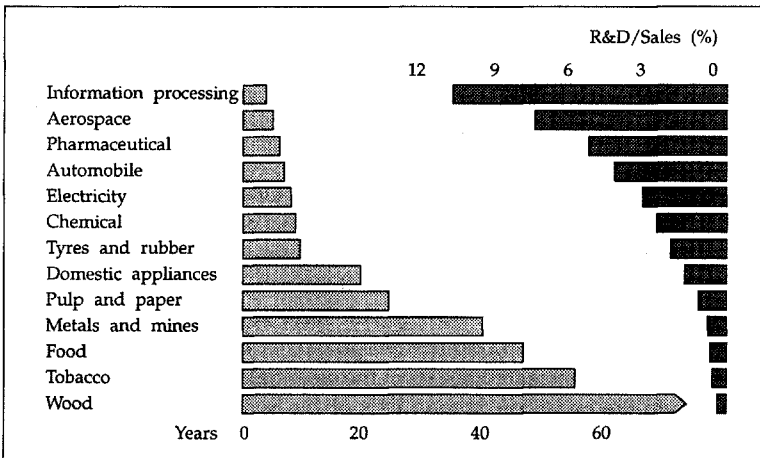
At the same time, the shortening of product cycles, and the concomitant acceleration of product innovation, led MNEs to enter into strategic alliances with their competitors, often from another region, to share sharply rising R&D costs, pool resources, and gain better access to different tech-

nologies and markets. The linkages and inter-firm networks created by such inter-firm alliances and collaborative agreements primarily spanned the United States, Europe and Japan.

The relationship between product turnover and outlays for R&D is apparent in Figure 1. Product cycles are short and the share of R&D in sales is high in exactly those industrial sectors which are most often associated with globalization, like electronics, aerospace, pharmaceuticals, automobiles and the electrical goods industry.

In addition to altered and extended links between multinationals, their internal structures tend to be adapted by vertical disintegration in the course of contracting out production and services to other firms, often of a smaller scale. The big firms tend to externalize functions considered to be of less strategic importance, retaining those viewed to be essential for keeping strategic control.

Figure 1: Product life cycle and the share of R&D in total sales



Source: Canadian Council of Professional Engineers (1983: 5).

2.3. Are We Heading towards Globalization?

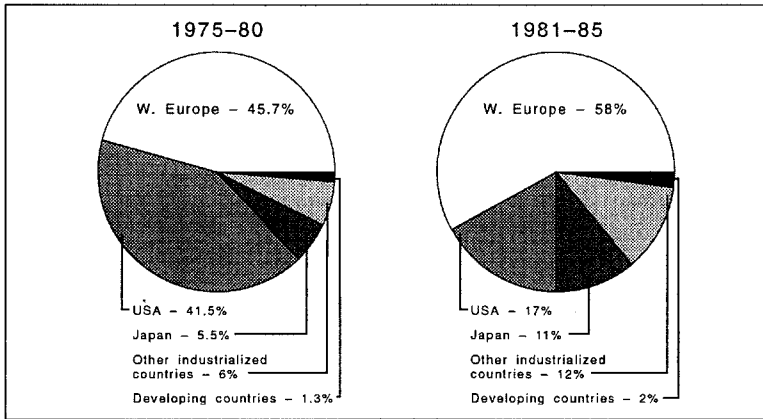
The rapid expansion of international investment and offshore markets, along with the assertive role played in it by corporate strategies of the MNEs, have led observers to speak of the "globalization" of the economy. This term has different meanings for different people. To Petrella (1991), globalization marks the third phase of cross-national economic integration. It leaves behind it a first phase based on international exchange of

goods and services, which Petrella calls "internationalization", and a second phase linked to foreign direct investment, which he terms "multinationalization". In contrast, "globalization" affects all phases and activities upstream and downstream from producing goods and services, including conception, development, manufacturing, distribution and consumption. In addition, it puts an end to national institutions, such as the nation-state, national currency, national economy, national bank, national postal services, national education, national culture, etc., and replaces these by international institutions.

Other writers are less ambitious when defining globalization. Next to the inter-penetration of markets and the more generic nature of the new information technologies, reference is often made to an accelerated homogenization of consumer tastes, product standards and production methods on a global scale, to mergers and acquisitions bound to affect global restructuring, and to the trend of large corporations to be less dependent on any one nation's economy. These phenomena are said to have weakened the ability of the State to control the behaviour of other major economic actors theoretically under its jurisdiction, and have pushed the boundaries of policy-making into the sphere of the global rather than the national economy (OECD 1989). In fact, certain writers seem to suggest that for true and sustainable globalization something like global government would be indispensable.

But, even short of the political dimension of globalization, one may ask whether and how far globalization on a purely economic level has really been a worldwide phenomenon. Two major reservations may be made on that account. First, one may argue that the economic world has tended to become multipolar rather than global. Some speak of a "triadization", meaning that the three economic superpowers of Japan, the United States and Europe, and their satellites, form the essential perimeter of the global economy, to the exclusion of the LDCs of the South. This becomes clear from the regional distribution of FDI outflows (Figure 2). In fact, while many developing countries enjoyed more rapid economic growth than industrialized countries for some time, their share of total production increased merely from 12.2% to 13.9% in the period 1966–84, during which they should have been the main beneficiaries of the global shift of production, if one believes in the NIDL theory. In the same period, the newly industrializing economies (NIEs) could increase their share of manufactured goods from 5.7% to 8.5%, which is a comparatively minor gain. But worse, in the 1980s, Latin America and sub-Saharan Africa faced a serious loss in world trade and entered a state of crisis which is not just an economic crisis. So one would be hard put to speak of restructuring in favour of the South. Rather, growth in developing countries was concen-

Figure 2: Sources of foreign direct investment outflows: Annual averages (in %)



Source: United Nations Centre on Transnational Corporations (1988: 11).

trated in a few countries such as the East Asian NIEs. The over-riding event in the international economy in the past three decades has not been the rise of the developing world but the steadily increasing share of Japan in world production.

A second reservation to be raised against the thesis of globalization concerns economic "regionalism". In place of an increasingly borderless worldwide economy we may well see a freer circulation of capital, goods and labour within some regional groupings of countries, such as the Single European Market, the zone of the North American Free Trade Agreement, MERCOSUR in the Southern American cone, and the Japanese-led trading bloc in the Pacific rim; regional integration could easily retard internationalization to the extent that it is accompanied by defensive import protectionism at its external borders, something which is visible in Japan, or also in the term "fortress Europe".

In concluding this brief sketch of trends of international economic integration, it may be said that there is doubtless an enormous advancement in international market penetration since the beginning of industrialization, indicated by the growth of trade flows and foreign investment. The fruits of this integration, however, are unevenly distributed in regional terms. Above all, they come to benefit the industrialized world, which is also the home of the multinational companies that are the driving force behind cross-border activities. Much of international integration consists of regional grouping, which suggests that there is a multipolar rather than a global economy.

3. LABOUR STANDARDS AS AN INSTRUMENT FOR REGULATING INTERNATIONAL COMPETITION

Theoretically, the internationalization of the economy adds an important dimension to competition. How important it is, *de facto*, will depend, *inter alia*, on the nature and magnitude of cross-national disparities in the treatment and remuneration of labour. The more wages, hours and other terms of employment differ, and also the more labour productivity varies, the more tempting it will become for firms to exploit such gaps in seeking to attain competitive advantages. This then could generate the risk of a general down-slide of pay and working conditions. The problem of exporting products and services that owe their competitiveness to low labour standards was recognized early in the course of economic integration, and repeatedly considered at international conferences. In the Covenant of the League of Nations of 1919, for example, the member states agreed to endeavour to secure fair and humane conditions of labour, both at home and "in all countries to which their commercial and industrial relations extend" (see: Treaty of Versailles, Part I, Art. 23(a)).

In principle, the problem of exploiting differing labour conditions, variably termed "social dumping" or "unfair competition", can either be tackled by creating international labour standards, i.e., creating common benchmarks and rules for the treatment of labour by all competitors in all countries, or alternatively by restricting trade in one way or the other. At different points in time, declarations were adopted that emphasize the link between trade and labour conditions. Without fair competition in the labour market, it was argued, liberalization in trade would be unsustainable.

3.1. Labour Standards Defined

The term "labour standard" has two connotations. It means, first, the actual level attained in remuneration, real income, health and safety, individual and social rights and other aspects of the material conditions of workers. In a second sense, labour standards are norms prescribed by law, collective agreement or common practice, which are set to prohibit particular behaviour or action in employing and deploying labour, or to elicit and promote action which is regarded as socially desirable. In other words, labour standards are variably used to mean "what is" and "what ought to be" with regard to the use of labour.

Following the normative use of the term, we may further distinguish between various types of standards. Standards of *protection* – set minimum

and maximum terms for the utilization of labour resources (e.g. minimum wages laws, maximum number of weekly hours, maximum noise levels, maximum weight carried by a worker, protection from toxic substances, etc.); standards of *participation* – regulate the collective organization of actors and the relations and forms of negotiation between them; standards of *promotion* – provide ways and means of support or promotion of particular courses of action or services (e.g. public agencies for the placement and training of workers). To be effective, the different categories of standards have to form a coherent, interactive and mutually reinforcing package of intervention into the labour market (Sengenberger 1990).

3.2. International Labour Standards and the ILO

Labour standards are set at various organizational levels, such as the establishment, enterprise, industry, region, nation and international economy. The need for providing standards at the international level was increasingly felt as the opportunity of competing through wages and working conditions expanded with increasing cross-border competition in Europe in the late nineteenth and early twentieth century. In the international debate which culminated in the foundation of the International Labour Organisation (ILO) under Article 19 of the Treaty of Versailles in 1919, labour standards at the international level were opposed by some countries on the grounds that they would handicap them on the international market by increasing their costs relative to other countries not covered by the common rule. For example, the ratification of the Hours of Work Convention, which was the first convention adopted by the ILO in 1919, was slowed down by this consideration. Others, in contrast, argued that international agreements to set standards would ensure that competition was not at the workers' expense and would in fact amount to a code of fair competition between employers and between countries. This argument was in fact embodied in the Preamble of the Constitution of the ILO, which states that "the failure of any nation to adopt humane conditions of labour is an obstacle in the way of other nations which desire to improve the conditions in their own countries" (ILO 1986).

It was perhaps not by accident that the ILO was created as an autonomous body at the end of World War I, when nations had just passed through a period of political and social disaster. At this time there existed – as was the case later after World War II – the "community of suffering" which can give rise to sufficient consensus capable of generating international order. There was agreement in the industrialized countries in 1919 to seek to create an organization apt to set international labour standards in order to relieve the social effects of international economic com-

petition and, more generally, advance justice in relation to the social conditions aggravated by the ravages of industrialization and the appalling working environment caused by it. The principles that “universal and lasting peace can be established only if it is based on social justice” and “labour is not a commodity” form further centrepieces of ILO philosophy.

The following more specific objectives of the ILO are stated in its Constitution:

- regulation of working hours, including the establishment of a maximum working day and week;
- regulation of the labour supply;
- prevention of unemployment;
- provision of an adequate living wage;
- protection of the worker against sickness, disease and injury arising out of employment;
- protection of children, young persons and women;
- provision for old age and injury;
- protection of the interests of those working in countries other than their own;
- equal remuneration for work of equal value;
- recognition of the freedom of association;
- organization of vocational and technical education.

From the beginning, the ILO was heavily involved in normative work, and the setting of international labour standards has been its core activity. The ILO, which at present has 156 member states, has a unique tripartite structure which enables national governments and workers’ and employers’ organizations to share power in the decision-making bodies, of which the Governing Body is the executive organ, and in the International Labour Conference, which elaborates and adopts international labour standards. Once standards are adopted by the Conference, member states must submit them within a year to their parliaments or other legislative authorities for the enactment of national legislation or action. These authorities remain free to decide whether or not they put them into effect, but they are in any case obliged to inform the Director-General of the ILO of the actions taken.

Today’s International Labour Code consists of 171 Conventions and 178 Recommendations, the two forms that ILO standards can take. *Conventions* have a legal status similar to international treaties. Once ratified by the competent national authority, they involve binding international commitments. Appropriate documentation has to be supplied by the country’s government about how the convention will function. The ILO Constitution also requires non-ratifying member countries to report periodically on the extent to which their laws and practices implement the

provisions of unratified conventions. They must indicate what is preventing or delaying the ratification. *Recommendations* do not create any international obligation but are designed to provide guidance to governments in formulating their social policies. They have been found most suitable or appropriate whenever a subject is not yet ripe for the adoption of a convention, or to supplement a convention, or where it seems desirable to leave a wide latitude to states as to which action should be taken.

The application of ratified conventions is closely monitored through ILO's reporting and review machinery, involving the International Labour Office as the secretariat of the ILO, as well as tripartite committees of the Conference and independent experts. Reports are scrutinized with a view to helping governments to overcome difficulties which they may have in making standards effective. As concerns compliance, any member has the right to file a formal complaint with the International Labour Office if it is not satisfied that any other member is securing the effective observance of a convention which both have ratified. The matter is then made subject to inquiry, and eventually recommendations are made as to the necessary steps to be taken to meet the complaint. The governments in question then have to either accept the recommendations or refer the complaint to the International Court of Justice, whose decision is final.

More than 5,000 ratifications have been made so far by member states, which averages more than 30 per member. Among the conventions most commonly ratified are the Convention of 1930 on Forced Labour (No. 29), the Convention of 1957 on the Abolition of Forced Labour (No. 105), the Convention of 1948 on Freedom of Association and Protection of the Right to Organise (No. 87), the Convention of 1949 on the Right to Organise and Collective Bargaining (No. 98), the Convention of 1951 on Equal Remuneration for Men and Women (No. 100), the Convention of 1958 on Discrimination in Employment and Occupation (No. 111) and the Convention of 1964 on Employment Policy (No. 122). These key conventions, each of which has been ratified by more than 100 member states, are seen as fundamental human rights being of particular concern to the ILO.

It is recognized as a problem that the record of ratification varies vastly across countries. With some notable exceptions, most ratifications are made by the industrialized or near-industrialized countries, while the developing countries have ratified far fewer conventions. It has been debated at great length, both inside and outside the ILO, whether the developing countries can even afford to apply the minimum standards laid down in the International Labour Code. The ILO itself has responded to this question by providing some *flexibility* in introducing standards to take account of the widely varying economic and social conditions and

legal and political systems. In view of such variety, two extremes are to be avoided. One is to set standards which can be accepted at once by the greatest possible number of countries, with the risk that the common denominator is apt to result in a standard too low to produce any significant progress. The other is to aim at too high a standard which will not be immediately practicable in most countries. Many standards are formulated in fairly general language, thus giving governments latitude either in the scope of setting the standard or in the methods of application.

It is generally held that the standards promulgating fundamental human rights mentioned above should apply independently of the state of a country's development. For example, no matter how rich or poor a country is, it cannot be accepted that trade union leaders be harassed, be jailed, disappear, or be murdered. Substantive standards, on the other hand, usually contain flexible formulas of one kind or another. For example, with regard to minimum wages, Convention No. 131 specifies that a country should have a system of minimum wages in one form or another, but it does not stipulate the minimum wage required. It would be unrealistic to set a substantive rule given the enormous differential of wages across member states. (In the United States, for example, the minimum wage per hour is about the same as for a full working day in adjacent Mexico.) Even so, it is the ambition of the ILO to adhere to the principle of *universality* in setting and enforcing standards, and not admit regional standards for groupings of countries of different degrees of development. Regional standards would accentuate rather than reduce differences in development, and would mean that in certain regions there would be "sub-standards" for "sub-human people" (Valticos 1969: 218).

The other way in which the ILO, together with other specialized United Nations agencies, has attempted to deal with the wide differential in national labour conditions has been through *technical co-operation*. This includes education, consultation and technical assistance, and is given primarily to the countries of the South to assist them in their development process, e.g. through public works projects, setting up vocational training and rehabilitation centres, promoting full employment, forming rural co-operatives, building safety and health systems and establishing systems of social security. The setting and application of labour standards and technical co-operation are seen to complement and strengthen each other. Technical co-operation is to be designed with the aim of achieving progress towards the ratification of and compliance with international labour standards.

3.3. Labour Standards and Multinational Enterprises

In 1977, the Governing Body of the ILO adopted a *Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy*. To date, this constitutes the only universally applicable code of conduct for MNEs. The OECD guidelines for the conduct of multinationals is a limited regional instrument, and negotiations going on since 1973 for a UN Code of Conduct on Transnational Corporations have never reached agreement.

The ILO Declaration originated in concerns in the 1960s about increasingly powerful companies that operated across national boundaries and were subject to differential labour laws. Many governments and trade unions demanded that international rules be drawn up to govern the activities of MNEs and define the terms of their relations with host countries. The Tripartite Declaration was the ILO's response to calls for guidelines which could help to mitigate the social and labour problems of MNE activities, and encourage the positive contributions that they could make to economic and social progress. The Declaration is a voluntary instrument. There has not been consensus for a legally binding ILO Convention on that matter.

The Declaration consists of a preamble and five major sections dealing with general policies, employment, training, conditions of work and life and industrial relations. In the section on general policies, governments are called upon to ratify a number of key conventions, or comply with them, if they have not done so. All parties involved are to make these standards the guiding principles of their social policy, especially in countries where this has not been the case. The MNEs are specifically requested to offer in the host countries of their subsidiaries wages, benefits and working conditions no less favourable than those provided by domestic employers. Moreover, they are asked to maintain the highest standards of safety and health, in conformity with national requirements, bearing in mind their relevant experience within the enterprise as a whole, including any knowledge of special hazards. Furthermore, MNEs are called upon to observe the ILO Conventions on collective organization, collective bargaining and other standards of industrial relations, endeavour to increase employment and training opportunities and standards, provide employment stability and social security, extend equality of opportunity and treatment in employment and adapt technologies to the needs and characteristics of the host countries.

In triennial surveys, the International Labour Office collects information on the extent to which governments, employers' and workers' organizations respect the principles and recommendations contained in the Tripartite Declaration. There is also a procedure for the examination of

disputes over the meaning and interpretation of the Declaration. Complaints against MNEs were filed, for instance, in relation to cases of workforce reduction in which the enterprises failed to inform the representatives of the workers. Union avoidance is one of the main problems of MNE conduct in foreign countries. Under the Tripartite Declaration, multinationals must not relocate operations from a country or site in order to evade unions or collective bargaining. In this regard, it is important to know that the ILO introduced a special procedure to deal with cases involving conventions 87 and 98 concerning freedom of association and the right to organize and bargain collectively. While in general complaints of violation of ILO standards can only be filed against a member country that has ratified the convention in question, complaints in relation to Conventions 87 and 98 can also be lodged even against states that have not ratified these conventions, as is the case with some of the NIEs in South-East Asia, but also against the United States of America. Recently, there have been complaints about the industrial relations practices in the U. S. of subsidiaries of three foreign MNEs – BASF, ENI and Norsk Hydro – which have been brought to the attention of the ILO Committee on Freedom of Association.

The ILO Code of Conduct for MNEs has been found relevant for the actual behaviour of multinationals. In a meeting held by the ILO in 1990 on the overseas activities of Japanese enterprises, the Japanese Ministries of International Trade and Industry and Labour, as well as *Nikkeiren* (Japan Federation of Employers' Association) and *Rengō* (Japanese Trade Union Federation) stressed the importance of the Tripartite Declaration for guiding behaviour abroad (ILO 1991). It was recognized that the sharp rise of FDI by companies of Japanese origin, particularly after the revaluation of the Yen in 1985, has given rise to bad relations and conflicts between affiliates of Japanese MNEs and the local communities in the United States, Europe and Asia. These have included labour-management problems such as difficulties of communication, imposition of Japanese-style management without respecting local practices, discrimination between Japanese and local staff as regards promotion, working conditions and other related matters. The controversial practices were attributed mainly to a lack of experience as well as lack of awareness or misunderstanding of the socio-cultural environment and laws of host countries in which they operated. (The same could be said, presumably, for the MNEs of other nations.) It appears that information and guidance is especially relevant in host countries where the practice of union avoidance is prevalent, where countries have not ratified key ILO Conventions (e.g. Conventions 87 and 98), and where there is a high density of "free enterprise zones" or "export processing zones" (EPZs), such as in South-East Asia, Mexico

and the Caribbean Basin (on this subject, see ILO and UNCTC 1988). These zones were created by certain developing countries to attract capital from Europe and North America by offering especially favourable social, tax and other conditions.

3.4. Linking Labour Standards and Trade

The International Labour Code and the ILO machinery to monitor it have doubtlessly advanced the international regulation of the labour market, and contributed to levelling labour conditions within and between countries. Yet major deficiencies remain when it comes to taking labour out of destructive competition, and these become more visible with the advancement of internationalization of the economy. The following shortcomings may be mentioned:

- 1) Although the process of ratification of ILO standards has reached impressive levels, progress has slowed down in the past decade. Major areas of labour competition remain uncovered by standards, leaving countries with a well-developed labour code exposed and vulnerable. Think, for example, of the competitive pressure exerted by the use of Sunday work in industry on countries which do not allow it, or the pressures resulting from the use of child labour (the ILO estimates that there are 120 million children engaged in gainful commercial work).
- 2) The power entrusted to the ILO for sanctioning the failure of countries to set and enforce standards is limited. The ILO has little executive power to police its standards. It acts by making cases of non-compliance public. By invoking the disapproval of the world community, it brings moral suasion and moral pressure to bear. As a former Director-General said, the ILO is not a world-wide Ministry of Labour. It can set guidelines for national action and stimulate such action, and assist in its implementation when requested. But it cannot substitute itself for governments, or for trade unions, or for employers' organizations (Morse 1969). The ILO can only be as strong and effective as its constituent groups and its member States want it to be.
- 3) Given the enormously varying, and obviously exacerbating, differences, in the level of development between industrialized countries, NIEs and LDCs, it is impractical to issue strictly defined norms on conditions of work and levels of remuneration that could exert a forceful levelling effect.

The recent push towards globalization of economic activities, and the concomitant intensification of competition, bring the relevance of ILO standards back into prominence. There has been a search for new or better measures which, in pursuit of ILO standards, afford a surveillance, polic-

ing and sanctioning function reaching beyond what is available in the ILO's supervisory machinery.

One of the recent initiatives has been to link labour standards directly to trade. The basic idea of trade-linked standards is to inhibit the trading of goods that are produced under employment and working conditions which violate ILO standards. The International Confederation of Free Trade Unions (ICFTU), and notably one of its members, the International Metalworkers' Federation (IMF), which represents 165 engineering and metalworking trade unions in 70 countries worldwide, have spearheaded a campaign to link trade preference agreements to the maintenance of labour standards (ICFTU 1986; IMF 1988). The IMF argues that this could be done through national and international legislation, but also and perhaps best through the insertion of a "social clause" on workers' rights in the rules of the General Agreement on Tariffs and Trade (GATT). GATT can intervene in trade relations if it believes that governments are unfairly distorting world trade through preferential subsidies, discriminatory tariffs, or dumping. The IMF would like to see cases of clear breach of the labour rights laid down in ILO standards and international jurisprudence – such as the infringement of the freedom of trade union action, dangerous working conditions, excessive number of working hours, pay below value, the use of forced labour and child labour – brought under GATT sanctioning procedures in order to generate greater leverage. The IMF considers the abuses of workers' rights an unfair subsidy to firms or countries that are unable or unwilling to comply with labour standards, and an obstacle to the development of both industrialized and developing countries.

Pressure to link trade agreements to the maintenance of labour standards is not a new phenomenon. As early as 1906, an international labour conference in Bern adopted a treaty, later ratified by 12 European countries, which prohibited the manufacture and trade of matches containing white phosphorus, a compound that caused particularly distressing diseases amongst the workers who produced it. In 1948, the United Nations Conference on Trade and Employment was to write a Charter of the International Trade Organisation (which later became GATT, with more limited ambitions). The initiative then failed, due to the refusal of the United States Government to ratify the Constitution of the Organisation because of the explicit link between trade and labour standards in Article 7 of its founding charter. More recently, however, the United States has shifted its position and has begun to take account of the labour standards operating in the countries with which it has trading agreements. For example, in 1983, it was stipulated that before a Central American or Caribbean country could take advantage of provisions for duty-free admission

to U.S. markets, it should be examined whether "workers in such countries are afforded reasonable workplace conditions and enjoy the right to organize and bargain collectively". Other similar pieces of U.S. legislation followed. Recently, a panel of the Economic Policy Council of the United Nations Association of the U.S.A. viewed it necessary to make GATT the venue for imposing economic penalties on countries and industries not in compliance with labour standards and other international norms of trading conduct (Economic Policy Council of United Nations Association of the USA 1991). The European Parliament also advocated trade-linked standards when in 1983 it called for a new GATT article requiring members to respect ILO Conventions, and a social clause is being debated in connection with the completion of the Single European Market.

Some critics, among them governments of developing countries, contend that trade-linked labour standards are a disguised form of protectionism on the part of the industrialized countries (Servais 1989; van Liemt 1989). They feel that linking labour standards to trade will in fact work against the very people it seeks to help by removing one of their few competitive advantages, such as low wages and low labour costs. If developing countries were forced, it is argued, to raise labour standards in order to secure trade agreements, they will erode their own competitiveness, lose their attraction for MNEs and thus kill the goose which lays the golden eggs. The IMF has responded to this criticism by showing that its affiliate trade union organizations in developing countries, such as in South and East Asia, do not cling to such arguments and were generally in favour of trade-linked labour standards.

As yet, the inclusion of a social clause has been limited to the agreement concluded by the United States and a few international commodity agreements, such as those on rubber, sugar and tin (for a full account, see Servais 1989; van Liemt 1989). To date, there is no majority in international forums in favour of action that would use GATT as a lever for effectuating labour standards. Attempts by the IMF to raise the inclusion of a social clause in GATT based on ILO standards, first in the Tokyo Round, then in the Uruguay Round of negotiations, have failed. The proposal to include a social clause in the Lomé Convention (between the EC and the countries of Africa) also fell through. But it could well be that pressure is mounting in the 1990s to a level which leads to trade-linked standards on a multi-lateral basis, be it in a coercive manner through trade sanctions or restrictions of capital flows, or in a more conciliatory manner by using international mediation.

4. LABOUR STANDARDS AS CONTESTED TERRAIN

Despite being enshrined in international agreements at the highest level, such as the ILO Labour Code, UN international agreements on economic, social and cultural rights, the European Council's Conventions for the Protection of Human Rights of 1950, labour standards have remained a battleground of controversial viewpoints and diverging interests. From a historical point of view, we observe a conjuncture for labour policy. Periods of broadly favourable public opinion and support alternate with periods in which labour standards have been subject to significant controversy. It seems that big leaps forward in advancing standards were encountered in the years following the two world wars, when, under the fresh impression of political and social catastrophe, governments were willing to take greater responsibility and commitment in the area of social policy, and when employers' and workers' organizations were prepared to co-operate. Such a "new frontier" spirit is reflected in important enactments, at both the national and the international level, in labour policy in the decades following the wars. The period 1919–1921 was one of heavy standard-setting at the ILO, dealing with the long-standing demands by workers for the 8-hour-day and the 48-hour-week, and Conventions were drafted dealing with unemployment, night work by women and young persons, the minimum age for industrial employment and the employment of women before and after confinement. Conventions 87 and 98 on the freedom of association and the right to organize and bargain collectively, perhaps the most important conventions of all, were adopted in the aftermath of World War II in 1948 and 1949, respectively.

In contrast, the 1980s turned out to be a decade of limited advancement and stagnation in labour policy. Although the ILO had more member states than ever before, the rate of ratification in this period was dragging, and a number of countries even denounced standards. It was a period of exacerbated international competition and increasingly global interdependence in which labour conditions and labour standards became the subject of competition as well. The sentiment was to liberalize the economies and deregulate the labour market, rather than coming up with farther-reaching international accords in labour policy that could have taken labour out of competition. At the turn of the 1990s, the demise of the COMECON world was interpreted by many as witnessing to the failure of state intervention into the economy, and demonstrating the superiority of capitalist market-type systems. All this created hard times for progress on labour standards.

4.1. Objections to Labour Standards

Objections raised in the 1980s against labour standards were primarily couched in economic terms. Academics and practitioners alike asserted that a trade-off exists between labour standards and economic development, a position that clearly strikes against basic tenets of ILO philosophy, which sees economic and social progress as mutually reinforcing.

On a more theoretical level, labour standards and labour market regulation have been charged in recent years – mainly by orthodox free market economists – with constraining, or even impairing, economic growth, structural adjustment, and the expansion of employment. Such impacts are alleged particularly with regard to developing countries (see, e.g., World Bank 1988), but similar criticism has been launched of advanced industrialized countries (for Germany, see *Deregulierungskommission* 1991). Critics see the effect of labour standards, such as minimum wage legislation, trade union actions, collective agreements and active employment policy, as raising the price of labour above its opportunity cost (or market-determined level), creating undue levelling of wages and other terms of employment, distorting optimum factor allocation, impairing downward adjustment of real wages to changing market conditions and, in the final analysis, diminishing the demand for labour and generating lasting unemployment (for details, see Wilkinson 1991).

Incorporated in the criticism is a challenge to the principle of universality of labour standards. It is claimed that standards interfere in detrimental ways with the competitive advantage of developing countries, which stems from low labour cost and a business setting free of rules and state intervention. This comes close to arguing that labour standards constitute a sort of “luxury” good which only the prosperous can afford while the poor have still to earn it. It suggests that development comes first, standards second. Standards are, in this view, an output, but not an input, of development.

Frequently, the economic dynamism in East and South-East Asia has been called upon to serve as chief witness to these ideas. It was contended that the Republic of Korea, Hong Kong, Taiwan, Singapore and also ASEAN countries such as Malaysia and Thailand would owe their ability to have successfully mastered the adverse economic shocks in the last two decades to the lack of normative standards in the labour market, whereas Western industrialized countries suffered from insufficient adjustment and economic sclerosis due to an over-extension of labour and social policy. It is true that the Asian NIEs have a comparatively poor record of ratification of international labour standards. Deplorable working conditions, such as long hours of work, prevail. It may also be true, as the

International Metalworkers' Federation asserted, that in these countries potential investors are not encumbered with any extra production costs from social policies (IMF 1988: 15). Nevertheless, it would be too simplistic to follow the popular stereotype and attribute the economic performance of the Asian NIEs exclusively to brutal labour exploitation, and it would be equally wrong to explain their success by reference to unfettered market forces. Studies available on the Republic of Korea (Amsden 1989) and on Singapore (Lim 1990) present a more differentiated picture based on substantial state intervention and also on an increasing role for welfare policy, induced partly by worker militancy and partly by government policy. Downward real wage flexibility was not a major contributory factor to the success of the Asian NIEs. In the Republic of Korea, for example, real wage growth in manufacturing was extremely rapid, amounting to 9.3% a year between 1965 and 1984 (Amsden 1989). In the period between 1980 and 1990, real wage earnings in Korea increased nearly 100%. Real wage growth amounted to 86% in Thailand between 1980 and 1986, to around two-thirds in Singapore between 1980 and 1988, and to about 53% in Hong Kong over the same period. China and Malaysia also recorded substantial real wage gains in the 1980s. This contrasts clearly with sub-Saharan Africa, where minimum wages fell by about one-quarter in most countries and more than 50% in some countries, and with Latin America, where real minimum wages fell by about 25% in the 1980s. In this decade, progress in the incidence and importance of collective bargaining was made in the Asian NIEs, whereas the opposite was true for Latin America and Africa (ILO Governing Body 1990). What's more, the Asian countries provide examples of restructuring upmarket, moving from low-wage, labour-intensive lines of production to upgraded, more value-adding and skill-intensive technologies. Such transformation was facilitated by rising quality of labour supply through educational and training policies which could explain why they continued to move so fast in spite of labour shortages and rising real wage levels (Labour and Society 1989; Amjad and Mohanty 1991).

4.2. Labour Standards as Economic Opportunities

The philosophy which is in opposition to the one just mentioned sees labour standards as an indispensable input, or ingredient, to balanced and sustainable development (e.g. Sengenberger 1990). It dismisses the luxury argument as inappropriate to any country, whether developed or less developed (the terms "developed country" and "developing country" signify a misnomer anyway, to the extent that elements of advanced and retarded development co-exist in virtually any country).

This line of thinking does not assume, as do the neo-liberal critics of labour standards, that there is one best way of structuring the economy, determined by economic and technological forces. Rather, it sees the labour process as a political one which can take account of a narrow, or a wider, range of interests and forces of power, and consequently take different courses of action and arrive at different results. Labour standards can bring a broader spectrum of interests into play. They can, for example, contribute to balancing the development of various regions through schemes of inter-regional financial transfer, or arrange through social security systems the accommodation of interests of successive generations. They are not meant to promote the attainment of short-run gains in limited economic units. Rather, they are to assist in servicing more general interests through averting individual opportunistic action, and facilitating exchange and joint development. To this effect, a good deal of criticism is misplaced that assesses standards largely or exclusively in terms of their short-term costs and benefits for individual firms, thereby neglecting negative externalities, that is, effects produced elsewhere in the economy, or impacts showing up at a later point in time. It has to be admitted, however, that in reality labour institutions and labour regulation exist in many quarters that do have a narrow, parochial scope (e.g. union organization and collective bargaining solely on the company level). Such regulation would miss some of the opportunities that accrue from a wider interest accommodation. For example, as the cases of steel and shipbuilding demonstrated, more and better options of resolving in a socially acceptable manner the decline of a local industry exist if the costs of restructuring are shared, and the risks diffused, through a policy scheme involving local, regional and national levels of organization and resources.

The role and importance of labour standards do not generally lie in restricting competition. While competition can evoke the abuse of labour standards, it can also further the spread of standards where these are held to promote competitiveness. In fact, as Edgren notes, the most blatant cases of labour exploitation and deprivation are not normally found in manufacturing industries which produce for export. The worst offences are usually found in plantations and mines, the construction industry and small service firms working entirely for the domestic market (Edgren 1979: 529). The role of standards lies in channelling, directing and managing economic activities in such a way as to prevent "destructive" competition, and to elicit and promote a "constructive" competitive regime. For suppressing destructive competition an effective minimum floor (or maximum ceiling) to wages, hours of work, safety and other terms of employment and conditions of work is essential. The common standard

removes from the employer the (tempting) possibility of seeking and gaining competitive advantage from cutting wages, or paying sub-standard wages. It removes the opportunity from the worker, or the public, to "subsidize" firms that cannot pay a living wage, as Ray Marshall terms it (Marshall 1988). This argument should appeal to neo-liberal thinkers who take any opportunity to object to wage-cost subsidies, or any form of subsidization. The availability of undervalued labour provides, in fact, a way of compensating for managerial, organizational and other forms of inefficiencies and inadequacies (Wilkinson 1991).

In practical terms, the question is where wage subsidization begins. Is it the evasion of paying legal or contractual wages? Is it the lack of a minimum wage rule? Is it the (deliberate) pay below value of product which occurs if productivity improvement is not passed on to real wages so that consumption power is withheld from the (domestic) worker? For example, Japanese industry in the 1970s, and the Asian NIEs in the 1980s, were blamed for deliberately practising undue wage restraint in order to gain advantages, and this policy, if practised on a large scale, would generate overproduction and underconsumption on the international market. What seems clear is that the type of export-led growth which we could observe in the economies of the Pacific rim, and to some extent also in Germany, cannot serve as a generalized strategy of world development, simply because trade surpluses for all countries are logically impossible. In addition, it tends to provoke protective measures by the less successful economies. The internationally more acceptable solution to the problem would be to raise real wages to a point where sufficient domestic demand for absorbing the production could be generated.

Labour standards have an important role to play to stem downward-directed wage and price competition. They oblige firms to be active and look for alternatives other than low pay and poor working conditions in order to gain competitiveness, such as product and process innovation. The latter amounts to bringing down unit labour costs, rather than total labour costs. Keeping labour costs low, as is suggested for poor countries to spur their development, is simply not a good recipe. Rather, development depends ultimately on making labour more productive. Firms are just not inclined to invest in human resources if they are cheap.

Yet, experience has shown over and over again that the mere blocking of downward-directed wage competition, or protection from dismissal, may not suffice to induce firms to shift resources from less to more efficient use. Employment protection is hardly effective unless coupled with policies of training and income support that help the firm restructure its operations so that it can keep and redeploy its incumbent work force. Similarly, a convention that prohibits child labour is of little value for

halting this abuse unless supportive programmes of income support and social security help to overcome the root causes of employing child labour. More generally speaking, protection standards have to be complemented with standards promoting an active labour market and social policies that set firms on the track to socially desirable solutions.

By obviating destructive labour competition, labour standards can also help to promote *co-operation*, that is, the joint development, pooling and sharing of resources for gaining greater economies, or for generating political voice. Co-operation requires minimum levels of stability in social relations, security and mutual trust. None of these will come about on a broad scale unless there is some form of collective agreement that assures each competitor that undercutting wages and other destructive competition is illegitimate, and not to be tolerated. While there have been cases of tacit agreement among employers to suppress labour competition, normally it takes trade unions to assure the conclusion and control of effective collective agreements.

This analysis leads me to stress the “package” character of labour standards. Standards of participation, protection and promotion have to effectively combine to produce desirable economic outcomes, and sustainable and comprehensive economic and social development. Seen from this angle, charges of excessive standards are mostly ill-founded. Looking closely into the labour process in various countries, one finds that the problem is one of missing categories of standards, rather than one of over-extension. In one way or another, practically all countries fall short of living up to the full range of standards. Most produce partial, selective strength. East Asian economies have been able in recent decades to improve the quality of their labour supply through better schooling and vocational training, and thereby to achieve an upgrading of their technology and large productivity gains. At the same time, they often have less than satisfactory working conditions, such as exceptionally long hours of work, which sooner or later may lead to losses in the productive power of these countries. Furthermore, these countries are far from using their full productive capacity as a result of overt discrimination against women and the resulting labour market segmentation by gender. In contrast, many Western industrialized countries may be better able to control excess efforts of their labour forces and discrimination by gender, but have made little headway in their human resources policies.

5. CONCLUSIONS

The internationalization of the economy has progressed at an accelerated rate in recent decades. This is indicated by the volume of trade, the activities of multinational companies which are capable of escaping the control of national regulation and national public authorities, and emergent or incipient trading blocs that aim for supra-national regional integration.

It is argued in this paper that, to be effective, social organization is required on a scale commensurate with economic organization. The reach of labour standards has to be co-extensive with the market. Given the advancing internationalization of the economy, the question is how much the existing system of setting and enforcing labour standards can contribute to channelling international competition in constructive ways. In principle, labour standards can help to guide competition in desirable directions by setting and enforcing a minimum floor or a maximum ceiling for pay, terms of employment and working conditions, and also by eliciting and promoting co-operation within and between the social parties. These two effects are likely to come about if standards of participation, protection and promotion at various organizational levels combine and reinforce one another.

ILO standards are an essential instrument for channelling competition at the international (and national) level. They set guidelines for national action, stimulate such action and assist in its implementation. Most important, they stipulate basic rights for workers and employers to organize and bargain collectively, and set a code of conduct for these actors, as well as for governments. The actual effects of international labour standards remain limited, however, as powers to legislate and execute these rules are largely reserved for national authorities. In addition, the impact of ILO standards is seriously hampered by large, and partly increasing, cross-national disparities in productive power, real income and wealth. This makes it impractical to impose world-wide common substantive standards, such as a common minimum wage, minimum age for employment, or minimum safety standards. Substantive common benchmarks would be imperative to take some of the destructive competition out of the labour and product markets. Perhaps, before such common substantive standards become feasible, progress on the enforcement of procedural norms, such as freedom for trade union action, is indispensable. Obviously, there is a problem of circular, cumulative causation of weak, or suppressed, worker representation and internationally unbalanced economic development.

In view of this quandary it is not, *a priori*, possible to predict the actual

meaning for labour standards of the intensified competition emanating from accelerated globalization. Will it trigger, as trade unions fear, the downscaling of standards, notably in countries with a well developed labour code? Will it, on the contrary, induce pressures for international cross-fertilization, not only of the hardware component of technology, but also of those social models and standards that have proven to stimulate adjustment and efficiency? This trend is already apparent in the spread of human resource development to many countries of the North and the South. Or will the present upsurge of globalization soon be followed by a backlash that would reproduce national or sub-national economies, and an emphasis on autocentric, rather than internationally integrated development? Whatever the outcome, it is hardly conceivable that lasting liberalization in trade will occur without progress in attaining universal labour standards.

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THE FORMATION OF LABOUR STANDARDS IN THE SINGLE MARKET

Gerhard Bosch

ABSTRACT

The decision to create the single market by the end of 1992 gave fresh impetus to the integration of the European Community, and is to be followed in the longer term by further projects such as the European Monetary Union. The unions, the Commission and some governments are demanding that a common social space be constructed as well. The paper explains in detail the process leading to the single European market. It explains its expected economic effects and the social risks involved. This is followed by accounts of the development of the European social space up to now and a brief analysis of European collective bargaining. The conclusions are: The "European Social Space" has yet not been extended very far. Except for the area of health and safety protection, the legal basis for common minimum standards is inadequate. The unanimity of the 12 member states required to deal with fundamental issues such as co-determination, working-time, etc. has hitherto been lacking. Due to contrasting levels of social standards and divergent forms of regulation (state versus collective agreements, centralized versus decentralized regulation), general harmonization of social standards is not possible. However, to prevent social dumping, minimum standards are regarded as an adequate means of promoting social integration of the member states.

CONTENTS

1. Introduction
2. The Single European market
 - 2.1. Origins
 - 2.2. The Single European Act and the *White Paper*
 - 2.3. Economic consequences
 - 2.4. On the road to monetary union
3. The social risks of the single market
4. The legal bases for social standards in the EC
5. EC social policy to date
 - 5.1. The period 1958–1987
 - 5.2. The years since 1987
6. European collective bargaining policy
7. Difficulties in the formation of social standards in Europe
- Bibliography

1. INTRODUCTION

The European Community (EC) was founded in 1957 by six countries. It has now grown to include twelve member states.¹ The total population of the Community is approximately 326 million (Table 1), which represents an enormous potential for economic power, technological development, productiveness and cultural diversity. In purely quantitative terms, the EC is a considerable force on the world stage:

- The Community accounts for 18% of world income and of world production, while only 7% of the world's potential earners (people between the ages of 15 and 64) live in the various member states (Figure 1).
- The Community ranks considerably higher in world trade. It accounts for more than 35% of world exports and imports, or about 20% if trade within the Community is excluded – a greater share than that of the United States or Japan.

Such figures sound impressive, but cannot hide the fact that the EC is in no way an integrated economic area comparable to the U.S.A. or Japan. It is true that customs duties have to a large extent been eliminated in the first 30 years of the EC's existence. However, the EC does not yet have a single currency, and the individual member states, anxious to retain their sovereignty, have surrendered only a small, though increasing part of their jurisdiction to the Commission. And despite the abolition of customs duties and many non-tariff barriers to trade, there are still many trade barriers left. The diversity of languages within the Community makes it difficult to develop a *lingua franca* that would facilitate communication within Europe.

The decision to create the single internal market by the end of 1992 gave fresh impetus to the process of *integration*, and is to be followed in the longer term by further undertakings such as the European monetary union. The fundamental purpose of this process of integration is to create a common *economic space*. At the same time, the trade unions, in particular, and also the Commission and some national governments are demanding that a common *social space* be constructed as well. The harmonization of social standards is intended to prevent the undermining of the highly

¹ In 1957 six states founded the European Economic Community. In 1965 other European authorities (for the coal, steel and nuclear industries) were integrated and the name was changed to European Community. In this paper I only use the actual term European Community. The present members are: Belgium, Denmark, Germany, Spain, France, Greece, Great Britain, Ireland, Italy, Luxembourg, the Netherlands and Portugal.

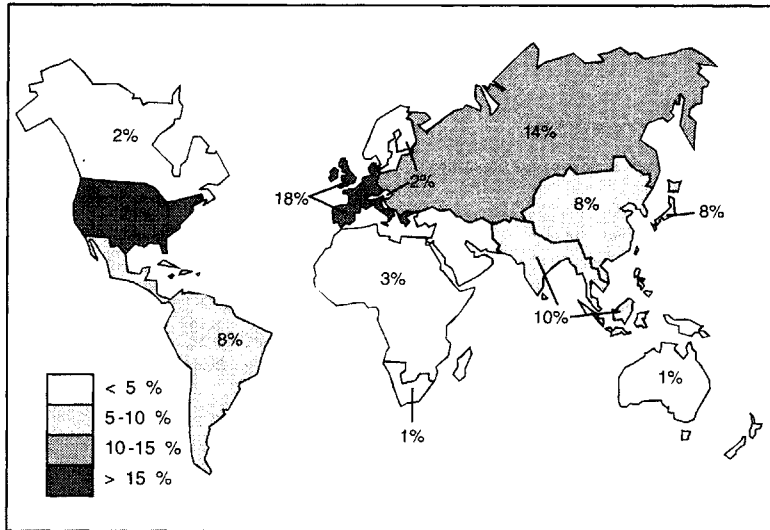
Table 1: Key employment indicators in the Community

	Units: Millions						
	1965	1975	1985	1986	1987	1988	1989
Total							
Total population	293.2	312.2	322.0	322.8	323.6	324.6	326.1
Population of working-age (14-64)	188.0	198.1	216.9	216.9	217.6	219.0	
Total employment	122.6	124.8	124.3	125.3	128.1	130.5	132.6
Ratio of employment to working-age population	65.3%	63.0%	57.6%	57.8%	58.9%	59.6%	
Total unemployment	2.6	5.5	14.9	14.9	14.6	13.8	12.7
Unemployment rate	2.1%	4.3%	10.8%	10.7%	10.3%	9.7%	9.0%
Youth (14-24) unemployment rate			23.1%	22.3%	20.9%	19.6%	17.4%
Employment in agriculture	20.1	13.9	10.5	10.1	9.7	9.4	9.0
Employment in industry	49.5	48.3	40.7	40.6	41.2	41.5	42.1
Employment in services	53.1	62.2	73.1	74.6	77.2	79.5	81.4
Share of employment in agriculture	16.4%	11.2%	8.5%	8.1%	7.6%	7.3%	6.8%
Share of employment in industry	40.3%	38.8%	32.7%	32.4%	32.2%	31.8%	31.7%
Share of employment in services	43.3%	50.0%	58.8%	59.5%	60.2%	60.9%	61.5%
Men							
Total population		151.9	156.6	157.0	157.5	157.5	158.8
Total employment		82.2	78.1	78.2	79.6	80.5	81.2
Total unemployment			3.3	8.0	7.8	6.7	6.0
Unemployment rate				9.4%	9.2%	8.6%	7.8%
Youth (14-24) unemployment rate				21.4%	20.6%	18.8%	17.2%
Employment in agriculture				6.8	6.5	6.4	6.1
Employment in industry				31.4	31.2	31.6	31.9
Employment in services				39.9	40.5	41.7	42.5
Share of employment in agriculture				8.8%	8.4%	8.1%	7.6%
Share of employment in industry				40.1%	39.9%	39.7%	39.6%
Share of employment in services				51.1%	51.7%	52.2%	52.8%
Women							
Total population		160.3	165.4	165.8	166.1	166.5	167.3
Total employment		42.5	46.2	47.0	48.6	49.9	51.4
Total unemployment			2.3	6.9	7.1	7.1	6.7
Unemployment rate				12.9%	13.0%	12.9%	12.5%
Youth (14-24) unemployment rate				25.0%	24.3%	23.3%	22.2%
Employment in agriculture				3.7	3.5	3.5	3.3
Employment in industry				9.4	9.4	9.5	9.7
Employment in services				33.0	34.0	35.6	37.0
Share of employment in agriculture				8.0%	7.5%	7.3%	6.6%
Share of employment in industry				20.5%	20.1%	19.8%	19.3%
Share of employment in services				71.6%	72.4%	72.8%	74.1%

Source: Commission of the European Communities (1989: 72).

developed social security systems that exist in most EC member states as a result of deregulation being necessary due to increased competition within the Community. There are sufficient grounds for such fears. German employers – and in this respect they are no different from those in other member states – see the internal market as the “greatest deregulation programme in history”. According to a member of the board of Höchst AG, the “supply shock calls into question over-regulation, excessive taxation and outmoded structures that restrict employers’ room for

Figure 1: Distribution of World Income – 1988



Source: Commission of the European Communities (1989: 39).

manoeuvre and offers a unique opportunity to create a free, un-bureaucratic economic order". For another employers' representative, Europe 1992 will serve "to open up outdated structures".

It remains to be seen whether the EC internal market will really lead to the creation of an economic and social area that will serve as a model throughout the world, as Jacques Delors had repetitively claimed (Delors 1988), or to the deregulation of the most highly developed social security systems in the world. The outcome will depend on the extent to which social security systems in Europe can be harmonized, at least partially, or common minimum standards created. There are grounds for the assumption that the implementation of common standards of social security will take considerably longer to achieve than economic integration.

This paper will first describe the process leading to the completion of the single European market by 1992 and give an account of its expected economic effects (Section 2) and the ensuing social risks (Section 3). This will be followed by accounts of the legal bases for socio-political harmonization within the EC (Section 4) and of the development of the European social space up to now (Section 5). The paper will conclude with a brief analysis of the development of a European collective bargaining policy (Section 6) and consideration of prospects for the future (Section 7).

2. THE SINGLE EUROPEAN MARKET

2.1. *Origins*

As the former vice-president of the EC Commission, Lord Cockfield, pointed out that the reasons for increased European integration had little to do with idealism and a great deal to do with "solid economic concerns", namely the recognition that the Community would increasingly lose ground and market share to its main competitors, the U.S.A. and Japan, if it did not succeed in fully exploiting the potentially enormous single market of its 12 member states. By the 1970s the European market had lost the power it had held in the 1960s as customs duties were gradually abolished.

A few figures will serve to clarify the situation: Between 1965 and 1973 exports from the Federal Republic of Germany to other EC countries increased by 13.5% per year, while imports from member states grew by 11.6%. Trade with non-member states expanded less rapidly (exports increased by 8.5% per year and imports by 5.6%). This initial impetus from the EC came to a halt with the first oil crisis of 1973. Between 1973 and 1984 there was a great increase in trade between the F.R.G. and non-EC countries (non-member states: exports +9.6%, imports +12.0%; EC countries: exports +9.5%, imports 9.5%) (cf. Busch 1988; Office for the Official Publications of the European Community 1987/1988). Moreover, since 1973 the internal economic dynamic of EC countries had been weaker than that of the U.S. A. or Japan. "In terms of gross domestic product, EC member states in the period 1969–1972 ranged on the second place behind Japan, still a recently industrialized country at that time, and thus ahead of both the U.S.A. and the EFTA countries. In the period after 1972 the EC countries, despite regional expansion, ranked behind Japan, the U.S.A. and the EFTA countries" (Dicke 1989: 91; cf. Figure 2).

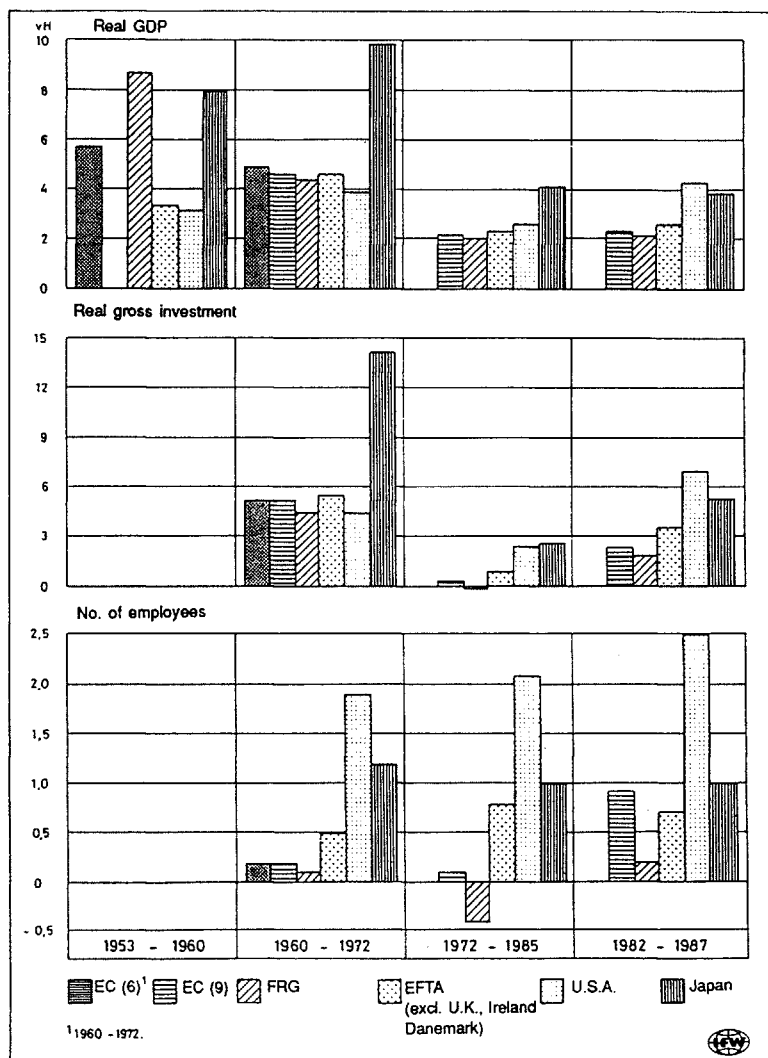
This economic slow-down was accompanied by considerable decrease in employment. At the beginning of the 1980s, individual countries were increasingly attempting to introduce subsidies and import controls. There was a risk that economic integration might be undermined.

2.2. *The Single European Act and the White Paper*

The prevention of further relapses into national protectionism required a fresh strive toward integration, which at the same time seemed more advantageous to all member states than going it alone. Thus in 1982 the Council of Ministers made plans for creating an internal market.

Customs union had already been achieved, i.e. tariff obstacles to trade had been eliminated. The Commission hoped to give fresh impetus to the

Figure 2: Evolution of gross domestic product, gross investment and employment in the industrialised countries (Annual average changes in %)



Source: Dicke (1989: 32).

process of integration by eliminating important non-tariff obstacles. In order to put the plans for the internal market into practice, the Commission produced a so-called White Paper containing almost 300 proposals

for the elimination of existing physical, technical and tax restrictions. These 300 individual measures harmonize regulations, or liberalize them.

In the case of liberalization, the principle of country of origin applies, that is national governments mutually recognize their own various legal regulations, standard systems and examination and licensing procedures. In order to avoid difficult harmonization procedures, precedence was given to liberalization. In particular, the *White Paper* contains measures on:

- the implementation of the free movement of goods (in particular the elimination of so-called technical obstacles to trade, such as variations in vehicle safety requirements);
- the development of free trade in services (e.g. access for foreign insurance companies to other national markets);
- mutual recognition of qualifications in order to open up the labour market for skilled workers to all citizens of EC member states;
- the liberalization of the movement of capital (e.g. opportunity to open a bank account in any EC country);
- the liberalization of public procurement systems (opening up of calls for tender to foreign bidders);
- the creation of a “European company” that would be readily accepted in all member states;
- the alignment of indirect taxes (particularly VAT);
- the elimination of border controls.

The *White Paper* is based essentially on employers’ proposals which have largely been accepted by the Commission.² It is therefore hardly surprising that the *White Paper* contains *no declarations at all on social policy*.

In 1986 the so-called *Single European Act* was signed. This represents the most comprehensive reform of the *Treaty of Rome* of 1957 and creates the legal framework for the completion of the single European market by the end of 1992. The sweeping away of borders within the Community of twelve is intended to lead to the free circulation of services and capital, freedom of movement for goods and European workers and the abolition of technical and tax obstacles to trade.³ In concrete terms,

² In 1985 the former head of Philips wrote a paper on “Europe 1990”. This paper was subsequently approved by the Round Table Group of European Industrialists. The Commission simply adopted large parts of this text and made it official policy for the single European market.

³ The amended EC Treaty defines the single market as follows: “The single market comprises a space without internal frontiers within which the free movement of goods, people, services and capital is guaranteed in accordance with the provisions of this treaty” (EEC Treaty, Article 8a).

this means that, by the end of 1992, the 300 measures listed in the *White Paper* are to be put into practice. With this decision, the national governments and the Commission deliberately put themselves under pressure to succeed. The deadline of 1992 served primarily to send a political signal. It was evident to the Commission "that it could not have shifted national policies at all without such an ambitious target" (Schloser 1988: 89ff.). The deadline was also an attempt to generate a campaign atmosphere within the EC. Individual governments have further fuelled this atmosphere through television broadcasts. In this respect there were and are considerable differences between the various European countries. In the less highly developed EC countries great hopes have been placed on assistance from the richer member states and great importance attached to the completion of the single market. In the Federal Republic, on the other hand, reactions to these new developments have been late to materialize; at least in the '80s due to the high trade surpluses most Germans did not feel threatened by the increased competition.

2.3. Economic Consequences

The plan to create a single market still lacked academic justification, so the Commission requested a group of researchers under the direction of Paolo Cecchini to investigate into the economic consequences of the single market. This group's report concluded that the impact on growth and employment would be positive. Cost reductions for firms, reductions in expenditure for governments and increased competition, particularly in hitherto protected markets, would lead to additional growth in gross domestic product of +4.5% to +7.5% and an increase in employment of 1.8 to 5.7 million within six years (Cecchini 1988). These effects are greater than in comparable studies carried out in the 1970s. The main reason for this is that the macroeconomic models used in the study assume increasing rather than constant or even decreasing economies of scale. In other words, it is assumed that the size of firms in Europe is not optimal, but will have to be increased as a result of larger markets (Dicke 1989: 90). This assumption has rightly been criticized for ignoring the decrease in the size of firms in several sectors as a result of the flexible specialization of production and for the query of classic principles of mass production. For example, it is argued the Federal Republic's favourable competitive situation in the machine tool industry cannot be strengthened by the transition to mass production.

A further criticism is that the negative effects on the labour market caused by company shutdowns are not being sufficiently taken into ac-

count. Such negative effects will, moreover, be concentrated in certain industrial sectors and regions. Thus, for example, increased competition will have a particularly serious effect on producers operating in previously protected national markets (e.g. steam boiler plants, railway locomotives, telephone and tele-communications installations, turbogenerators) (Figure 3). The free movement of goods, capital and services will favour individual regions and put others at a disadvantage. Maps are already being drawn in many places, on which the winning and losing regions are being marked. The regions currently tipped to be winners are the five small, dynamic regions of Baden-Württemberg, Rhône-Alpes, Lombardy, Catalonia and the South-East of England. Other regions with a high proportion of endangered sectors and an unfavourable geographical location will be among the losers.

Figure 3: Sectors vulnerable to potential restructuring (Industrial restructuring as a result of opening up public contracts in sectors where State purchases are predominant) (1986)

	Community market (in million ECU) ²	Current capacity utilization rate	Intra-EEC trade	Number of EEC producers	Number of US producers	Reduction in cost ¹
Boilers	2000	20 %	very low	12	6	20 %
Turbine generators	2000	60 %	very low	10	2	12 %
Locomotives	100	50–80 %	very low	16	2	20 %
Central computers	10000	80 %	30–100 %	5	9	5 %
Telephone exchanges	1000–5000	70 %	15–45 %	11	4	20 %
Telephones	5000	90 %	very low	12	17	–
Lasers	500	50 %	very high	+ 1000	+ 1000	–

¹ The reduction in costs represents economies of scale resulting from a doubling of production.

² European Currency Unit.

Source: Commission of the European Communities, Directorate-General for Employment, Social Affairs and Education (1988: 43).

And as a result of cross-border cooperation between regions, the various regions will presumably also begin to compete with each other more intensely than before. Previously unchallenged national centres, in the spheres of finance or the media for example, will now have to assert themselves in the face of European competition.

Where regional and national competition within the EC overlap and reinforce each other, there is a risk of competition to deregulate social standards if such competition is not suppressed by the introduction of social standards that are applicable throughout Europe. A negative example in this respect is provided by the U.S.A., where individual states seek to undercut each other in their social security systems in order to create a climate favourable to investment. In the indices of favourable investment climates published in the U.S.A., strong trade unions, short working hours, high health and safety standards etc. are always listed as negative points.⁴

2.4. On the Road to Monetary Union

At the last EC summit in Maastricht in December 1991 the national governments reached an agreement on the introduction of economic and monetary union until the end of the century. In the initial phase, all community currencies are to join the exchange rate mechanism of the European currency system and to coordinate financial policy more closely. In the second phase the European central bank system is to be established, which will initially be responsible for financial policy, although without releasing member states from their responsibility for monetary policy. Furthermore, the financial and economic policies of member states are to be more closely coordinated by certain rules. Changes in the broad exchange rates between member states are to be possible only in exceptional cases. In the third and final phase the European central bank system will take over full responsibility for the Community's monetary policy. The broad exchange rates between the currencies will be fixed definitively and the ECU (European Currency Unit) introduced as the common currency.

The details of this monetary union have not yet been fully worked out. It is also questionable whether the monetary union can be introduced in the late 90's since the precondition is a large degree of convergence in economic development and economic policy between the member states. Until now differences in rates of inflation, the development of productivity etc. have been reflected in the exchange rate. Thus in the 1980s the German Mark was revalued by 60% against the Italian Lira and by 30% against the French Franc (Busch 1991: 273ff.). There are many indications that economic policy and economic development are evolving differently in the various member states. In consequence, the draft for economic and monetary union sets up guidelines for budget policy that are, however,

⁴ This is impressively analyzed in Tarullo (1989).

only recommendations. "The discontinuance of the exchange rate mechanism in an economic and currency union will create an additional problem for European trade unions, namely that wage costs will have a much more direct influence than today on national and regional competitiveness... (This) will force the European trade unions, to a much greater extent than today, to coordinate and organise collective bargaining policy on a Europe-wide basis and in accordance with the system" (Busch 1991: 277).

3. THE SOCIAL RISKS OF THE SINGLE MARKET

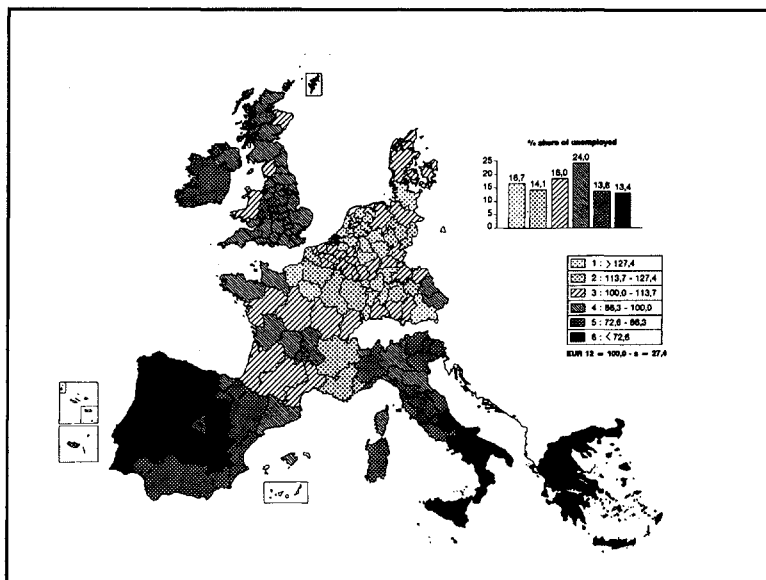
The single European market involves considerable risks for wage and salary earners, the significance and scope of which are assessed very differently in the various European countries, and even within those countries. These divergent assessments are hardly surprising, since the restructuring of the European economy will produce winners and losers.

The main fear of trade unions in the more highly developed EC countries is competition with the less advanced member states, where wages and social benefits are far below the EC average (Figure 4). High social standards can be undermined in the following way:

- With increasing competition between various regions of Europe, companies will shift production to countries with low wages and social standards. This will lead to job losses, and moreover European countries will try to improve their competitive position by deregulation of the welfare state. Since the expected monetary union will deprive individual states of the possibility of using *devaluation* to offset competitive disadvantages, there will be an increasing tendency to *devalue social standards*.
- As a result of the mobility of capital and labour, social standards in respect of existing jobs will also be put at risk, since the internal market provides various opportunities for *legal avoidance of existing social systems*. Thus, for example, a French company can use temporary employment contracts to hire Portuguese workers in France at Portuguese wages and dismiss its French employees.

Such legal avoidance is also possible between countries with similar levels of development but differing social standards. Thus, for example, a German company could transfer its head office to England in order to escape the German system of co-determination, although its production facilities and the larger part of its administration remain in the Federal Republic as before.

Figure 4: Gross Domestic Product (GDP) per person employed



Source: Commission of the European Communities, Directorate-General for Employment, Social Affairs and Education (1988: 90).

Most welfare state safeguards are based on a monopoly operating within a delimited sphere of application, corresponding to the boundaries of nation states, that is at risk of losing its foundation. The *territorial principle* (social regulations apply to all employees in a given region) is at risk of being undermined by the *principle of country of origin* (the regulations of the country of origin apply, whatever region of the EC employees are actually working in).

The peripheral EC countries are expressing quite different anxieties. They point to the advantages in modernization enjoyed by the more highly developed countries and see themselves as the losers in a situation of unbridled competition. The competitive advantages of the richer EC countries are self-evident. The Federal Republic, for example, because of its high level of technological development and the high standard of train-

ing among its work force, tends to be seen as a winner in the expanded EC market.⁵ Given the existing differences in levels of development in Europe, excessive haste in the harmonization of social standards would simply render the less developed countries hopelessly uncompetitive. These countries are also justified in asking that their concentration on areas of production that are more wage intensive, and in which they are consequently more able to be competitive, should not be included in any definition of *social dumping*.⁶

It is agreed that the long-term social, political and economic cohesion of the EC can be achieved only through the convergence of living conditions.⁷ However, there are differences of opinion as to whether such convergence can be achieved via the market or whether regulatory intervention will be required. There are two basic approaches to this issue:

1. Employers and conservative governments, in particular, consider any attempt at social regulation to be the "wrong road".⁸ Differences in labour costs are considered to be a precondition for the efficient allocation of resources in the various countries, so long as marginal productivity rates differ. If resources were redistributed via the market, this would automatically lead to convergence. Harmonization of social standards would only increase unemployment in the less highly developed countries. Advanced social policy regulations would not have an adverse effect on the competitiveness of the more highly developed countries if employees followed the rules of the

⁵ cf. Ermer et al. (1990), particularly Chapter 2.3.1 on the "social dumping" argument.

⁶ The concept of "fair working conditions" is being discussed in the ILO; social dumping is taken to include the creation of competitive disadvantages by failure to observe internationally recognized and agreed minimum standards. The GATT definition, in contrast, seems barely acceptable. In Article VI, paragraph 1 of the General Agreement on Tariffs and Trade, the definition of dumping includes only prices that are lower than the production costs or the price that the exporting country itself must pay. Thus starvation wages are legitimized as the market price.

⁷ Thus in the Single European Act the following goal is formulated: "In particular, the Community sets itself the target of reducing the gap between the various regions and the backwardness of the most disadvantaged areas" (Art. 130a).

⁸ cf. for example Frankfurter Allgemeine Zeitung, Feb. 12, 1989 (The Social Charter is the Wrong Way). Elsewhere it has been stated that: "From the point of view of trade policy, it is not necessary to adjust social standards in order to protect the 'high standard countries'. Rather, the chronic current account deficits in the peripheral countries make an increase in their exports seem desirable ... An increase in their labour and social costs brought about by harmonization would be an obstacle to that" (Kotios and Schäfers 1990: 202).

market and combined such advantages with the renunciation of wage increases.

2. The need for regulation is particularly emphasized by trade unions and social-democratic or socialist governments. Purely social arguments are increasingly being supplemented by economic arguments. Because of their low social standards, the peripheral countries are regarded to be at risk of concentrating solely on wage intensive production and thus obstructing their development in the long term. A gradual convergence of social standards would be an endogenous factor in economic development that would force companies in these countries to innovate.⁹ In the developed European countries it is feared that the welfare state will slowly be eroded, initially just at the edges (increase in precarious working), which will increasingly encourage companies to improve their competitiveness by cutting wages rather than through innovation and increased productivity.¹⁰ Thus the maintenance of the existing economic dynamic requires the welfare state to be stabilised or indeed extended.

These approaches are not always so clearly differentiated in practice as the ideal types outlined above. To some extent, employers and trade unions in the poorer EC countries are united in their opposition to excessively high standards, which in their view would place too great a strain on their economies. And then again supporters of deregulation, such as the current German and British governments, have closed ranks against those governments, such as the French and Danish, that are in favour of regulation.

4. THE LEGAL BASES FOR SOCIAL STANDARDS IN THE EC

The EC's competence to respond directly in the sphere of social policy is extremely limited. The EC developed as an *economic community* and considers social policy to be largely the responsibility of the member states. This is clear from its genesis. France, in particular, feared that its high level of social protection would lead to competitive disadvantages and insisted on a comprehensive harmonization of social policy; however, the

⁹ In this respect, see particularly Sengenberger's contribution to this conference.

¹⁰ The example of Great Britain is often used as a warning in this respect; by pursuing a strict policy of deregulation and eschewing any industrial policy, the British government has systematically ruined the country's competitiveness, to the delight of the major exporting countries.

French proposals met with stern resistance from the Federal Republic (Weinstock 1989: 15ff.).

The legal competencies of the EC in the sphere of social policy are correspondingly weak.

- Articles 117 and 118 of the Treaty of Rome stress the obligation of member states to cooperate in the formation of their social systems, although the concrete arrangements remain a matter of the individual member states.
- Article 119 of the Treaty of Rome formulates the principle of “equal pay for men and women for equal work”. Article 120 gives expression to the desire to retain the existing equality in respect of the regulations on paid holidays. Both of these articles are somewhat unusual in that they are directed at concrete provisions. The reason for this lies in the efforts of the French government to avoid being at a disadvantage as a result of the relative equality of pay for men and women that has been achieved in France and its lengthy holiday entitlement.
- Articles 48–51 establish freedom of movement for employees. In accordance with Article 123, the Commission has the task of “fostering the employability and the geographical and occupational mobility of workers within the Community”.
- Recourse to general regulations contained in the Treaty does offer the EC some opportunities for action. Thus the Community can – although only on the basis of unanimity – issue guidelines “that have a direct effect on the establishment or functioning of the common market” (Article 100).

The Single European Act has done little to change the EC’s lack of competence, except in the area of economic policy. It contains three new regulations:

- The Council can, with a qualified majority, decide on the alignment of legal and administrative regulations in so far as they concern the creation or the functioning of the internal market. However, this does not apply to regulations on the rights and interests of employees, but only to the measures contained in the White Paper (Article 100a).
- In accordance with Article 118a, the Commission can, with a *qualified majority*, issue minimum regulations for the improvement and harmonization of the working environment (particularly health and safety). These are always minimum regulations that can be improved by national legislation.
- Finally, the Commission is to try to promote a dialogue between the social partners in Europe, which may also lead to contractual relationships if the partners so wish (Article 118b).

If the member states agreed, they could pass virtually all conceivable social policy regulations. In practice, however, unanimity is rarely given. Differences of opinion are possible only in the area of health and safety at work, which is interpreted in a restrictive way. The need to reach full consensus has until now proved to be the most effective means of blocking the harmonization of social regulations or of establishing common minimum standards.

The majority of the member states therefore wanted an extension of qualified majority voting to a wider range of employment-related issues and the establishment of mechanism whereby European-level employers' organisations and trade unions could have a greater role in the formulation and implementation of Community social policy. At the last EC Summit in Maastricht in December 1991 the U.K. Conservative Government felt, however, unable to sign any treaty which contained provisions in these areas, claiming that resultant legislation would impose centralized regulations on the U.K. which might damage its competitiveness and cost jobs. In order to secure the U.K.'s signature to the European Treaty and the monetary union itself, a compromise was sought on the social policy issue. The chapter on social policy was entirely omitted from the new Treaty. The current social policy provisions will thus remain the only social provisions applicable to all 12 member states. Instead a protocol was added to the Treaty stating that 11 of the member states wish to continue along the path laid down in the Social Charter of 1989 (see Chapter 5.2 below). The protocol therefore states that the 12 agree to authorize the 11 to make use of the EC institutions, procedures and mechanism to take and apply the necessary decisions among themselves. The 11 agreed to majority votes on "working conditions" and "the information and consultation of workers". So a wide field of issues are now subject to majority votes. The 11, however, exempted from majority votes some crucial areas of national social policy like "social security and social protection of workers" which still require unanimity. In addition, the position of unions and employers is strengthened. If the commission intends to enact a regulation, management and labour may decide to reach a collective agreement on the issue in question. The compromise reached in Maastricht arguably raises more questions than it answers. The main question is: How will it be possible to use the institutions and mechanisms of the EC to develop social policy for 11 states only (European Industrial Relations Review 1992: 2-3)?

5. EC SOCIAL POLICY TO DATE¹¹

5.1. The Period 1958–1987

The years from 1978 to 1982 saw the introduction of regulations governing the free movement of labour within the EC. Apart from that, virtually nothing happened, and the Commission had to limit itself to comparative analyses of the various social systems.

The 1970s saw the development of the first action programme in the field of social policy. In 1974, the member states committed themselves to the implementation of approximately 40 measures within a period of 3 to 4 years. This resulted, among other things, in the introduction of the following directives that are binding for the member states:

- Several directives established the principle of equal pay for men and women and of equal treatment for both sexes regarding the access to employment and vocational training and in the area of social security. The prohibition on discrimination was also extended to recruitment, and sanctions were sought in the event of discrimination.
- The 1975 directive on mass redundancies reformulated the concept of mass redundancy as defined in the regulations providing protection against dismissal. The threshold at which dismissals are defined as mass redundancies is now lower than in the legislation then in force in the Federal Republic.
- The directive on the protection of employees' rights when the ownership of companies, establishments or divisions changes provided for the continued application of collective agreements and company agreements in the event of takeovers.

All these guidelines had to be incorporated into national legislation. Where this did not take place in due time, it was enforced through the European Court. For example, a series of actions enabled women to push through the elimination of legislative (not actual) discrimination (Schunter-Kleemann 1990 and 1991). It is characteristic of this period that the effect of EC directives in shaping legislation was not even transparent to experts. The debates on necessary changes to legislation were actually conducted throughout Europe solely on the national level.

However, a number of other attempts to formulate directives on temporary or part-time work failed. As in the sphere of economic union, the late 1970s saw the beginning of a phase of stagnation. The period of reform in Europe, heralded by the political changes that occurred at the end of

¹¹ The following observations are based essentially on Crijns (1987) and Däubler (1991).

the 1960s (May 1968) came to an end with the beginning of mass unemployment in the mid-1970s and the change to conservative governments and supply-side economic concepts.

5.2. The Years since 1987

Since 1987 the European Federation of Trade Unions had been demanding the introduction of basic social rights within the Community that would establish minimum standards in social policy. Several drafts were drawn up. Even the Economic and Social Committee of the EEC decided on a list of basic rights approved by several employers' representatives. The Commission, on the other hand, proposed only a "solemn declaration", which was mitigated even further in several meetings with the governments involved. At the Strasburg summit conference of Dec. 8/9, 1989 this declaration was adopted. It turned out to be less solemn than planned, since the British government could not be persuaded to approve of it, despite numerous concessions.

The Charter (see box below) contains nothing that exceeds existing laws. The Commission's social policy action programme of November 1989 went further, with a list of measures to be implemented by 1993. Five of these sets of measures are described here through examples:

The Directive on European Works Councils

With the completion of the single European market there will be a rapid increase in the number of company mergers in the Community. In accordance with EC competition law, 197 of the 1,000 largest companies in the EC were involved in joint mergers in 1988/1989 (the corresponding figure for 1983/84 was only 29). Such a Community-wide trend towards concentration avoids all national regulations on consultation, information and co-determination. In a draft guideline of December 1990, the Commission proposed that European works councils should be established in companies with at least 1,000 employees and at least two establishments with a minimum of 100 employees in two member states.¹² The modalities of appointment to these works councils are to be laid down separately in each member state. The rights of the works councils are to be determined in negotiations with the companies concerned. However, the minimum rights will include one meeting per year with the company management and information on

¹² This draft guideline is based on a number of group agreements, which have already led to the establishment of group committees, such as Thomson Grand Public, Gillette or Volkswagen (cf. Hans-Böckler-Stiftung 1991).

the company's economic development and on any important changes affecting employees. This directive is based on Article 100 of the Treaty of Rome, and therefore requires unanimous acceptance. The employers are blocking the proposal. They consider it to be a stereotypical and bureaucratic form of centralized employee representation. In their view, problems affecting employees can be resolved only at local level.¹³

**The Declaration of Fundamental Rights and Freedoms of the
European Parliament of April 12, 1989**

Emphasis should be placed in the first instance on the declaration of the inviolability of human dignity (Article 1), the affirmation of the principle of equality, which in particular prohibits discrimination on the grounds of nationality and sex (Article 3) and the freedom of movement granted to all citizens of the Community in accordance with Article 8, paragraph 1. Article 12 is concerned with the narrower sphere of fundamental social rights; it does not guarantee the right to work, but does state that workers should have access to vocational training appropriate to the abilities of each individual and that they shall be free to choose their occupation and place of work and shall not be disadvantaged for unobjective reasons. While Article 13 lays down minimum requirements for fair working conditions, Article 14 guarantees a system of collective bargaining and the right to collective action, including the right to strike. Furthermore, employees should be granted rights to information and consultation in respect of the economic and financial situation of the undertaking in which they are employed (Article 14, paragraph 3). While the right to health protection and social security (Article 15) and the right to education (Article 16) belong to the traditional stock of fundamental social rights, Articles 18 and 24 go further: the former guarantees the individual's right of access to information, while the latter is concerned with the environment and consumer protection.

Source: Däubler (1991: 315).

The European Company

Proposals have been put forward for the establishment of a new, supranational legal form for companies in different member states seeking to merge. All plans for the creation of this so-called European company have so far foundered on the issue of co-determination. Several years ago the

¹³ cf. Handelsblatt March 22/23, 1991 (Die Arbeitgeber wurden im Sozialausschuß überstimmt).

Commission proposed that company management and work force should be able to reach agreement on one of three models of co-determination: the German model of co-determination at the level of the supervisory board, a separate employee representative body independent of the other bodies (the French model) and collective bargaining systems (the Swedish model). A European company without co-determination is inconceivable. The employers and a few governments are blocking co-determination and want a European company "without restrictions".

Directive on Certain Aspects of the Shaping of Working Time

The draft issued at the beginning of 1990 contains the following minimum regulations: a minimum daily rest period of 11 hours, i.e. a maximum daily working period of 13 hours and one day off per week; the restriction of night work to eight hours, together with a ban on overtime in the case of certain dangers; special breaks for night and alternating shift work and special arrangements for health checks and the change from night to day work. The majority on the Economic and Social Committee have criticized the proposal on the grounds that it lags far behind existing regulations in member states. With the exception of Great Britain, the maximum daily working period in all member states is already 12 hours or less. The proposal is also criticized for saying nothing about the duration of working hours, overtime bonuses or the banning of Sunday work. In this respect it lags behind earlier proposals (the 1974 recommendations of the Council on the 40-hour week). The reason for the inadequate proposal certainly lies also in the weak legal basis. In order to reach a majority decision only regulations under the terms of Article 118a and relating to health and safety issues were accepted.

Proposed Directives on Atypical Employment Relationships

The Commission has proposed three directives addressing atypical work relationships founded on different legal bases: Articles 100 (requiring unanimous approval in the Council of Ministers), 100a and 118a.

The first directive based on Article 100 is the most important of the three aimed at giving workers employed on atypical contracts treatment equal to that of other employees in respect of employment and working conditions. It is proposed in the directive that part-time and temporary workers should have the same access to vocational training as normal staff, in relation to their working time and their tasks, and that employers would have to inform employee representatives if they want to use part-time workers. Also casual workers should be informed in due time if the company plans to recruit workers for full-time employment, so that the casual worker has a chance of application.

The second directive proposes that casual workers be granted the same entitlements to annual holidays, dismissal and seniority allowances as full-time employees, in proportion to the total hours worked, while the third proposal entitles part-time and temporary workers to the same health and safety provisions as full-time staff.

Since the number of part-time and temporary workers has risen in recent years and work on casual terms has become an almost "typical" form of employment, legal provisions ensuring at least minimum standards of social protection for casual workers are needed. The proposed directives are aimed at setting these minimum standards.

These guidelines have also turned out to be very weak because of the fragmentation of their legal basis. In several respects they would require German legislation to be amended. For example, part-time employees working fewer than 15 hours per week would have to be included in the social security system. Because of this improvement, the German Federal Government has rejected these guidelines out of hand.

Directives on Health and Safety

In virtually no other area is the Commission as active as in health and safety. There are two reasons for this. On the one hand, the legal bases for majority decisions have been established (Article 118a). On the other hand, health and safety are closely connected with technical standards; common minimum standards are a precondition for the unimpeded export of machinery.¹⁴ Even before the Single European Act, several directives were adopted (particularly protection against hazards caused by asbestos, noise and lead) that had a considerable influence on national legislation. Since 1986 the work of the Commission in this area has been systematized. It has submitted not only additional directives on individual measures but also draft directives on the structuring of health and safety protection. According to these proposals, for example, working environment regulations will have to be extended to all employees (certain groups are excluded in the Federal Republic) and employee representatives will have to be involved in setting up standards. Efforts will be made to harmonize registers of occupational diseases.¹⁵ In general, EC harmonization has

¹⁴ For this reason, several guidelines (in accordance with Article 100a) are binding for all countries, so that, for example, the import of machines cannot be prevented because of inadequate safety standards.

¹⁵ More occupational diseases are recognized on the European level than in most of the individual member states, including the Federal Republic. At EC level there are approximately 900 hazardous substances and only 385 in the Federal Republic (cf. Konstanty and Zwingmann 1991).

brought improvements for employees in an area virtually ignored by the public, although there have also been some retrograde steps.

The "European social space" has not yet been extended very far. Except in the area of health and safety protection, the legal bases for common minimum standards are inadequate. The unanimity required to deal with fundamental problem areas such as co-determination in Europe has so far been lacking. The European economic space can be further integrated on the basis of majority decisions. Social policy, on the other hand, is subject to the restraining effect of unanimity.

Another constraint at least on the harmonization of social standards that is almost as important in practice is to be found (a) in the contrasting levels of development of social standards and (b) the divergent forms of regulation.

(a) In the developed welfare states in the EC, almost 30% of gross domestic product is spent on social security; the corresponding figure for the less developed countries is barely 20% (Table 2). The convergence of expenditure levels requires comparable levels of economic development.

Table 2: Social security expenditure in the EC (1984)

	As % of GDP	Per capita ¹ (in ECU)
The Netherlands	32.8	4,074
Belgium	29.6	3,482
France	29.4	3,713
Denmark	28.9	3,840
F.R. Germany	28.5	3,762
Italy	27.3	2,829
Luxembourg	25.2	3,724
United Kingdom	24.6	2,900
Ireland	23.9	1,890
Greece	20.0	1,306
Spain	17.4	1,460
Portugal	15.2	1,047
EC	25.23	2,836

¹ adjusted for purchasing power.

Source: Eurostat quoted in Lecher and Naumann (1991: 126).

Thus the EC structural funds, which are primarily intended to provide assistance to more backward regions and those experiencing problems in the adjustment of agrarian structures, as well as to those regions with

Figure 5: Respective roles of laws and collective agreements in the various areas of the labour market

	Working time	Part-time work	Fixed term contracts	Temporary work	Minimum wages	Wage indexation	Collective redundancies	Individual redundancies	Vocational training
Belgium law CC	L ++ CC ++	L ++ CC ++	L ==	L ++	L ++ CC ++	L ++	L ==	L ++	L ++
Denmark law CC	L ++ CC ++	-- CC ++	L ==	L ==	-- CC ==	L ++	L ==	L == CC ==	L ++ ++
F.R.G. law CC	L == CC ++	L ++ CC ++	L ++	L ++	-- CC ==	for-bidden	L ++	L ++ CC ==	L ==
Greece law CC	L ++ CC ++	-- CC ++			L ++	L ++ CC ++	L ++	L CC	L ++
Spain law CC	L ++ CC ++	L ++ CC ++	L ++	L ++	L ==	--	L ==	L ++	L ++ CC ++
France law CC	L ++ CC ++	L ++ CC ++	L ++	L ++ CC ++	L ==	--	L ++ CC ++	L ++	L ++ CC ++
Ireland law CC	L == CC ++	-- CC ++	L ==	L ==	L ==	--	L ==	L ==	L ++ CC ++
Italy law CC	L == CC ++	L ++ CC ++	L ++ CC ++	for-bidden	-- CC ==	L ++ CC ++	L ==	L ++ CC	L ++ CC ++
Luxembourg law CC	L ==	-- CC ++	L ==	L ==	L ++	L ++	L ++	L ==	L ++
The Netherlands law CC	L == CC ++	-- CC ++	L ==	L ++	L ++	-- CC ++	L == CC ++	L ==	L ++ CC ++
Portugal law CC	L ++ CC ++	L ==	L ==	L ==	L ==	--	L ++	L ++	L ++
U.K. law CC	-- CC ++	-- CC ++	--	--	L ++ CC ++	--	L ++	L ++	L ++ CC ++

Each box provides two types of information:

- 1) If the matter is governed by law: L,
or by collective agreement: CC,
or is not governed by L/CC: --
in the country in question.
- 2) If the regulations have changed: ++,
or not ==
since 1982.

Source: Commission of the European Communities, Directorate-General for Employment, Social Affairs and Education (1988: 72).

declining industrial development (particularly coal, steel and shipbuilding), are of fundamental importance for future EC social policy. The resources for structural policy interventions in the EC will be increased from 7.2 million ECUs in 1987 to 14.5 million ECUs in 1993. All regions of

Portugal, Greece and Ireland can receive support for regional development from the funds, but only about 30% of the French and 20% of the German regions have this opportunity. The allocation of resources from the structural funds is subject to the submission of regional development plans, in order to prevent subsidies being paid out without there being any prospects of development.¹⁶

(b) Social standards are not regulated uniformly in the various member states. In several countries, the state plays a decisive role in labour law, while in others the same matters are the subject of collective negotiations (Figure 5). Or social security systems are financed to a large extent from the national budget (e.g. the figure for Denmark is almost 80%), while in others they are financed for the most part through employers' and employees' contributions. Thus harmonization would require not only an alignment of standards but also of modes of regulation, which will be at least as difficult to implement.

Therefore most supporters of the Social Charter stress that in the field of social standards *harmonization* is not possible, only *minimum standards* are regarded as an adequate means of promoting social integration of the member states. They allow for diverse systems of regulations and different levels of economic development.

6. EUROPEAN COLLECTIVE BARGAINING POLICY

It is becoming increasingly difficult for individual member states to go it alone in the area of collective bargaining policy, on working time and wages policy for example. The European dimension is playing an increasingly prominent role in disputes about collective bargaining. In the dispute about the 35-hour week in the Federal Republic of Germany, the employers' side based their opposition primarily on the longer working hours in other EC countries. IG-Metall tried to bring about the harmonization of working time requirements within the European Metal Workers' Association. Thus collective bargaining policy in Europe must be more closely coordinated. And the trade unions in particular consider that European collective agreements are required within the foreseeable future.

¹⁶ cf. Gabriel (1990). Obviously redistribution in favour of the poorer EC countries is not entirely without benefit to the richer countries. The opening up of borders increases the export opportunities available to their more competitive manufacturing industries. The structural funds provide compensation and are a precondition for acceptance of the single European market in Southern Europe.

A common collective bargaining policy requires European structures on both the trade union and employers' sides that have the power to take action. At the end of the 1960s, the Western European trade unions had five supra-national trade union organizations.¹⁷ These were subsequently merged to form the European Federation of Trade Unions, which does not yet, however, include the French CGT, the Portuguese Intersyndical and the Spanish *Comisiones Obreras*. However, the structural weaknesses of the European Federation of Trade Unions (EFTU) relative to its national member federations and the employers' side are inestimable. A total of 35 EFTU employees find themselves confronted by more than 1,000 offices and branches of the business lobby in Brussels alone. In several European countries, the trade unions are fragmented and are not even capable of coordination at the national level (as in France, for example). Several trade union federations, particularly the German DGB and the British TUC, are not empowered to conclude collective agreements, a right which remains the prerogative of the member unions.

European collective agreements appear at present to be conceivable only at sector level. They must take up topics on which a national collective bargaining policy already exists (cf. Lecher 1991 and 1989). *Working time* (cf. Bosch 1989; Bosch et al. forthcoming) might, for example, be such a topic, since it is regulated in most countries by collective agreements. One step towards real collective negotiations that has already been taken is the agreement between the central association of public sector employers in the EC (CEEP) and the European Federation of Railway and Energy Workers' Unions. According to the terms of this agreement, both parties are to make considerable efforts to offer training and further training to their employees, to promote equality between men and women in their working lives and to cooperate in a European sectoral study of the transferability of employees' social rights.

The European umbrella organisation for private business (UNICE) has hitherto strongly opposed all European agreements on collective bargaining. The same applies to the employers' associations in the individual countries. The president of the German metal industries employers' association, *Gesamtmittel*, sees "no current problems specific to the sector that can be discussed or resolved on the European level". He fears that

¹⁷ These were the following organisations: The European Trade Union Secretariat of the International Confederation of Free Trade Unions (ICFTU) member federations in the EC; the Secretariat of the EFTA trade unions in the ICFTU; the European regional organisation of the ICFTU; the trade union office of the World Confederation of Labour (WCL – Christian trade unions); the liaison office of the CGT and the CGIL (cf. Rath 1991).

the trade unions are proceeding on the basis of selecting the richest pickings from each national system. "This would mean that Danish wage levels would be combined with German holiday entitlement, Belgian working time and French child allowances. The dream of many trade unions would then become a nightmare for employers" (Kirchner 1988). In June 1991 UNICE relaxed its uncompromising attitude and indicated for the first time its readiness to negotiate.

The first steps towards European collective bargaining policy will probably be taken in the next few years with outline agreements at sector level on individual issues, such as working time and equality between men and women at work, which leave a lot of space for national differences. The trade unions will first have to develop structures capable of functioning at the European level, which will also induce the employers to establish corresponding structures. The current fragmented trade union structures, even at national level, suggest there is still a long way to go before a European collective bargaining policy is established. A further difficulty lies in the decentralization of collective negotiations in individual member states themselves, which reduces the issues that can be dealt with at national and international level. The Commission will play a decisive role. It can encourage negotiations by threatening to issue guidelines if the social partners cannot reach agreement themselves. It is for precisely this reason that the employers are so sceptical even about dialogue between the social partners promoted by the Commission (in accordance with Article 118b of the Treaty of Rome).

7. DIFFICULTIES IN THE FORMATION OF SOCIAL STANDARDS IN EUROPE

The EEC is, as its name suggests, primarily an economic community. The Common Market can function without common social standards, though less effectively. Although the EC enjoys comprehensive legal power in the realization of the internal market, its competencies in the social sphere are strong only when they are closely associated with technical standards, namely in the area of health and safety. In other areas, social standards and social security systems are considered to be an essential "attribute of national legitimation and sovereignty, which member states and their national governments do not wish to renounce" (Bieback 1991: 47).

Furthermore, there are enormous practical difficulties in the formulation of common European standards, which can be attributed to variations in levels of development and modes of regulating the welfare state. Particular mention should be made of the following problems:

- National social security systems are structures that have taken time to develop and are linked to particular attitudes (e.g. towards co-determination).
- The distribution of roles among the various actors in the sphere of social policy (state, trade unions, employers, intermediate bodies) varies considerably from country to country.
- Social security systems in many countries are currently being reformed or are under threat of deregulation. "If individual member states are making heavy weather of implementing the necessary reforms, it is difficult to see how a "super bureaucracy" in Brussels, remote from the scenes of social problems and social conflicts, can be expected to cope with them" (Bieback 1991: 46). This is all the more true since the Commission is unable to fall back on a developed European policy on collective bargaining that would gradually establish social standards for subsequent incorporation into legislation.
- The financial effects of a uniform social policy are completely unpredictable.
- The great differences in levels of economic development in Europe means there is only a small basis for a European social policy.

All these reasons indicate that the creation of a European social space is a project that will take many decades to accomplish and in which very many divergent national traditions will remain. It seems absolutely necessary that also the U.K. should sign the Maastricht protocol on social policy that would allow majority decisions regarding social standards which are binding for all member states. The advocates of a European social space will initially build up an apparently haphazard patchwork of social regulations, which will subsequently develop a dynamic of its own and lead to the establishment of that social space.

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THE GERMAN UNIFICATION PROCESS AND THE ORGANIZATION OF TRADE-UNION AND CO-DETERMINATION STRUCTURES IN EAST GERMANY

Volkmar Kreißig

ABSTRACT

Starting with a description of the history and functioning of the real-socialist union movement in the former German Democratic Republic (G.D.R.), the present article then focuses on the formation of employees' councils on company level taking place in the economic transformation process during the political change in 1989. An account of the contradictory impacts as well as possibilities and limitations of the employees' councils is followed by a description of the problems in the adoption of the West German dual model unions of workers' interest representation by works councils. The radical changes in the former G.D.R. on the one hand and the growing need for reform in West Germany on the other, lead to new requirements regarding the model of industrial relations in unified Germany. As a special aspect of industrial relations, the job market perspectives of women in their specific situation in the former G.D.R. and the present demands posed to the unions are discussed. Finally there is an account of the unsolved problems in the reorganization of industrial relations in Germany.

CONTENTS

1. Trade unionism in the former German Democratic Republic
2. The emergence of works councils in the course of the political turnabout and the adoption of the trade union model of the Federal Republic in the unification process
3. The reorganization of the trade unions and co-determination trends in the East: Outcome and consequences for industrial relations in unified Germany
4. Prospects for women in the labour market as a special problem of the former G.D.R., and today's trade-union actions in East Germany
5. Unsolved problems in the reorganization of industrial relations in Germany

1. TRADE UNIONISM IN THE FORMER GERMAN DEMOCRATIC REPUBLIC

In discussing the trade unions' and employees' approach to the organization of industrial relations in the former German Democratic Republic (G.D.R.), and presenting the problems which arise in the organization of

novel industrial relations in East Germany at present, first of all a short analysis of the past is necessary. After 1945, a trade-union and co-determination model which was based on the individual industrial trade unions and works councils of the *Weimarer Republik* (Weimar Republic) had developed in the Soviet zone of occupation just as in the Western zones. The trade unions founded in 1945 were linked together in the East in February 1946 into a unified Federation of Free German Trade Unions (FDGB). Over the course of time the Federation's head office's dominance over the individual industry unions became more obvious, in contrast to the West German DGB (Federation of German Trade Unions), which has largely granted autonomy to its individual trade unions and has even come to depend on the strongest unions to a greater or lesser extent.

In 1948, there was an important turning point in industrial relations. The platform adopted at the Bitterfeld conference of the FDGB, referring to the Soviet zone of occupation, said: "The still existing unpolitical, pure-trade-union element within the trade union movement results time and again in underestimating class warfare, which is being developed by the enemy of the working class against the progress of the democratic economy, ... The trade-unionism – only attitude that adheres to old bourgeois working methods, and is reluctant to keep close and permanent working contacts with the factory trade union groups, must be overcome. The new working style must be pushed through against them" (Ulbricht et al. 1966: 498).

"New working style" versus "pure-trade-unionism", in Bitterfeld terms, meant:

1. Belief of the trade unions in class warfare against "West German Imperialism". In other words, unionists should become aware of being opponents of West Germany, and also of the reformist (from a Stalinist point of view) trade union leaders there.
2. Renunciation of effective bargaining. Motivating the employees to achieve planned targets was given priority, largely irrespective of the central determined contents of the plans. This meant opposition to economic "co-determination" and cancellation of labour conflicts in the nationalized enterprises, and principal orientation toward "Socialist competition".
3. Close connections with the "party-politically"¹ motivated activists' movement which inspired better results in competition without guaranteeing equivalent interaction between higher performance, on the one hand, and wage negotiation and determination by employers and employees, on the other hand.

¹ German: *parteipolitisch*.

4. The trade unions' defining themselves as "schools of socialism" – in other words, as Stalinist "party-politically" determined training institutions for the employees who were organized in the unions. This was highly important in view of the fact that 80 to 90% of workers at that time were unionized.

A decisive resolution passed at the Bitterfeld conference – whose participants had been providently selected, and not elected, as representatives to the trade union congress – was to delegate the works councils' rights and duties to the factory trade union committees. This way the democratically elected grass-roots councils, which represented Syndicalist options more emphatically, were dissolved or integrated into the factory trade union committees, which were already largely dominated by the party. In the view of the party-political historiography of the Stalinist SED (Socialist Unity Party), "the coexistence of works councils and factory trade union committees" threatened to become "a serious obstacle". Thus, the way was paved for increasing the Stalinist and party-political subordination of the trade unions. Trade unionist traditions which were quite well developed in Germany (in contrast to other East European countries) were wiped out and displaced. Consequently, the West German trade union and co-determination model which has been efficient for decades and which is characterized by the dual action of works councils and the industry unions under one united umbrella organization could not develop in East Germany (Weiß 1987).

In spite of the criticism expressed by today's theoreticians concerning the sluggish reactions of trade union organizational forms to industrial changes at present and in the recent past, the co-determination and trade union model of the Federal Republic has proved its resistance and capacity to act in the development of industrial relations and the determination of internationally high working standards (Martens 1989). The ideas of what trade unions stand for got lost in East Germany, where the unified FDGB was increasingly developed into an unchallenged pillar of the political system. Reasons for this phenomenon are that the "leading cadres" of the trade union, including those at the company level were also selected or confirmed by the party leadership.

Thus, it was largely impossible for "party-politically" nonconformist trade unionists to be elected. On all levels in companies, groups, and state-run centralist industrial organs as well as in the public service, a "triumvirate" consisting of officially appointed and "party-politically" confirmed managers, party leaders and trade union committees had established itself. Together they motivated and supervised the fulfilment of the centralistically and bureaucratically planned production targets. Within this triumvirate the factory trade union committees were normally

degraded to the status of willing tools of second-rate importance in response to orders issued by the state-controlled management and the party leaders. In many cases the trade union officials themselves were members of the party leadership, being directly accountable to and bound by the party in their decisions. Consequently, they had no power to reject unrealistic production figures, or to connect the achievement of production quotas and wage claims. On the contrary, it was their job to explain the correctness of the centralist production targets to the employees.

Factory trade union committees worked to neutralize and filter toward the "triumvirate" the criticisms of employees concerning frequent interruptions in the production process, blocked material and information flows, and poor production scheduling. This way, a sophisticated system disguising production grievances was developing which promoted lethargy and lack of discipline. Simultaneously, the factory trade union committees were increasingly forced to play the part of a buffer between orders and instructions from the company's management and the party leaders on the one hand, and the increasing annoyance of the almost completely unionized employees about grievances and senseless, centralistically caused "frictional losses", on the other hand.

The trade unions, and particularly their leaders in the companies, had a number of social measures at their disposal to stimulate the achievement of production targets. Among them were the allocation of holiday stays in factory-owned holiday homes and central union-owned holiday homes, dispensation of therapeutic and prophylactic rest cures, co-determination in the allocation of bonuses and the awarding of many official decorations and medals and company appreciations, and participation in the organization of labour conditions. The worsening situation in foreign trade placed limits on the financial and material elbow-room of the trade unions in the companies. Nevertheless, they had a wide variety of supporting social measures to use in ameliorating the difficult production conditions in order to prevent the conflictual situations from escalating.

The unified trade unions – especially at the company level – were stabilizing the system, not only owing to their centralist subordination to the party leadership and the state-controlled management, but also due to their ideologizing function. In particular their political function as buffers, the social regulative measures they controlled, their role in calming and mediating conflictual situations, and their obligation to protect the individual employee against harsh disciplinary measures of the management contributed to the system's stabilization to the extent that they were realized and accomplished. Yet their most important task was to avoid the settling of collective conflicts in public – in other words, to avoid confrontation between employees and the state as the owner of the com-

pany – primarily by joint action with the other members of the triumvirate. However, the ideologizing measures taken by the trade unions were quite moderate in comparison with the rigid disciplinary measures taken by the party leaders against their members. Trade union activities neutralized potential conflicts, and aimed at compensation through wage policies and in other spheres in order to avoid the politically far-reaching consequences of exaggerating situations.

But the trade unions were also co-initiators of the “real-socialist”² Taylorism that was being applied to mass production in many industries. The inability to contribute to initiating flexible solutions in production mechanisms – which was one of the reasons for the real-socialist system’s failure – was largely owing to the lack of discussion and proposals concerning trade union policy. The blocking out of flexible working hours, job sharing, and part-time employment which many women had been longing for, as well as the lack of recognition of the systematic rationalizing effects of sporadic and “isolated solutions”³ are only a few examples. Consequently, the factory trade union committees, particularly at the company level, were faced with a constant dilemma in their work: on the one hand, they had the decreed duty to be a party-subordinated political stabilizer, on the other, they felt the need to bring to bear their potentials and possibilities in social policy making in the field of individual and collective labour conditions. Therefore, workers became increasingly disaffected with trade union activities when symptoms of an economic and political crisis became more and more apparent in the 1980s.

The majority of workers remained in the FDGB trade unions, perhaps merely for reasons of tradition, indolence, or widespread opportunism. However, the organization was of little importance to them. Grass-roots functionaries who were critical of the defects in the companies’ production process and the deficiencies of trade union work were either politically disciplined or ignored by the responsible members of the triumvirate. At higher levels of the trade union leaderships, functionaries were already corrupted by their few privileges, accepted their destiny of ideologizing idleness, and escaped to private riches and widespread alcoholism. Simultaneously, it can be stated that in a more and more central controlled economic system with a steadily developing Taylorist orientation in the economic competition among systems, only such a trade union model seemed to be possible.

Works councils with a more company-specific approach would certainly have reflected employees’ criticisms in a more direct way than did

² German: *realsozialistisch*.

³ German: *Insellösungen*.

the higher-level unified trade union committees. They might have interfered in distribution conflicts and tried to eliminate the stagnation in production and information deficiencies resulting from real-socialist Taylorism. Sooner or later they would have clashed with the real-socialist economic model if only from the point of view of the self-interest of the company, as this system was based on the distribution of economic losses; hence, the works councils' early elimination was a logical consequence of Stalinist system development and centralist economic control.

2. THE EMERGENCE OF WORKS COUNCILS IN THE COURSE OF THE POLITICAL TURNABOUT AND THE ADOPTION OF THE TRADE UNION MODEL OF THE FEDERAL REPUBLIC IN THE UNIFICATION PROCESS

The 1989 mass movement in the G.D.R. was primarily against the political system of the then SED leadership, with the following items being subject to particular attack:

- the inability to reach at least an approximate level of consumption comparable with that of former Federal Republic;
- the refusal to allow citizens to freely travel abroad (including to the West) which brought about the feeling of being permanently locked up behind a "wall";
- the increasingly total incapacity and unwillingness to concede the citizens and employees participation in politics and enterprises.

The steadily increasing Taylorist orientation of management strategies towards mass production combined with the above-mentioned frictions in the production process meant ultimately that "real socialism" was falling farther and farther behind capitalism in the Western industrialized countries that could flexibly respond to new production requirements and adopt innovative rationalization measures.

The mass movement against real socialism was initiated by intellectuals who had originally been striving for a modern "third way" as an alternative to capitalism and "real socialism". In the G.D.R. these intellectuals were subsequently outstripped by the masses who wanted a market economy on the West German pattern. Initially, the workers in the producing areas assumed a wait-and-see attitude toward this intellectual movement; some were skeptical, while others sympathized (Kädtler and Kottwitz 1990), so there were no serious confrontations in the companies for the time being.

After the political movement succeeded in eliminating the SED leadership and the "Berlin Wall" without being faced with considerable re-

sistance, it took root in the companies through various activities at the middle and lower levels of the management and the staff. Works councils⁴ were gradually formed, in the initial stage frequently in opposition to the triumvirate of works management, SED leadership, and factory trade union committee. Their first concern was to eliminate the company's party leadership and to dissolve the paramilitary voluntary forces – the workers' militia branch – which was led by party functionaries. Originally, the party had planned to mobilize these workers' militias to help suppress the demonstrations, but the militias disobeyed in many cases and were disbanded. Bloody clashes with the mass movement were avoided, and the process of the collapse of the political system proceeded peacefully as the army and police did not take action either.

This stage was followed by confrontations between the works councils and the works managements. The factory trade union committees that had been part of the triumvirate, being politically discredited, were particularly attacked. The deep integration of these factory trade union committees into the existing system, and their inability to foresee political and economic ruin in time, sealed their fate. They neither spearheaded the mass movement spreading in various enterprises nor backed the strikes and strike calls sporadically flaring up. On the contrary, they frequently justified and defended the old system; they were anxious to deal with troubles in a familiar way, and assumed a largely defensive or at best passive attitude. Only a few functionaries were able to fully understand the situation, and with some of them were accepted by their colleagues as grass-roots trade unionists due to their partially critical positions; they were participating in the political process that was under way. Others, becoming aware of their failure, retreated.

In many cases the initiators of the works councils movement were people who had formerly been disciplined or discriminated against; and usually non-party members or formerly humiliated SED members joined them. The initiators often came directly from various political groupings of the opposition movement, such as *Neues Forum* (New Forum), *Vereinigte Linke* (United Left) and *Demokratischer Aufbruch* (Democratic Uprising). With their frequently only fragmentary knowledge of possible co-determination and trade union models, they immediately focused on the former Federal Republic. Illusory ideas concerning trade unions' unlimited spheres of action and manifold rights of co-determination in the capitalist system (some of them promoted by several trade-union officials coming from West Germany) dominated the debate. Trade-union organi-

⁴ These were not identical with the West German *Betriebsrat* established by the Works Constitution Act (*Betriebsverfassungsgesetz*).

zations or co-determination models other than those of the Federal Republic were not accepted as guiding patterns; they were not taken into consideration at all. Many West German trade unionists were appealed to for help in the development of co-determination bodies and trade union structures. And among the unionists from the West, in return, many hopes came to life about the contributions to social "modernization pushes" that this peaceful, supposedly revolutionary movement in the East could bring to the institutions and industrial relations in the Federal Republic.

At the same time, West German trade unionists felt quite insecure in assessing a situation that changed almost daily, and were careful not to interfere. The central offices of the industry unions and of the DGB (parent organization of the West German individual industry trade unions) also kept up their contacts with the East German "FDGB partner organization" for a long time, until they recognized their desolate situation and the contempt in which the FDGB was held by the masses. Eventually they turned away rather helplessly, without knowing how to approach the development of new trade union and co-determination structures in the East.

A study made by the Chemnitz Institute of Economic and Social Research (WISOC) in January/February 1990 showed that a sizable majority of the employees were willing to join renewed trade unions. At this time they expected rationalization pushes for their firms as a result of Western investments. In view of the stagnation in the production process, these pushes were considered to be desirable, and the higher stress on performance was expected to help deal with existing grievances. Expectations that a part of wages would be paid in hard currency as a result of close cooperation with Western firms turned out to be very rare among the interviewees. This illustrates the enormous political consequences of the announcement of the economic and monetary union which enabled the conversion of savings accounts in the summer of 1990 at an exchange rate of 1:1 or 1:2. The previous unofficial rate of exchange fluctuated between 1:5 and 1:20.

It was not only the workers who were not quite aware of all the social consequences of this monetary union and that it would promote a deep economic crisis. They did not realize the problems which would arise in the G.D.R. economy when it unpreparedly confronted West German competitors. In January/February 1990, unemployment was not an important point to the majority of the interviewees who considered that it would be a temporary phenomenon, if it arose at all. Only lazy employees, mostly those working in the administrative machinery and thus being redundant in any case, would justly be afflicted by joblessness, it was thought. The expected forthcoming tremendous reconstruction work was expected to cure the ills of economy, heal ruptured communities, and help in other

fields; unemployment would not develop into a permanent and considerable phenomenon. The workers, relying primarily on their good skills, trusted that there would be work to be done everywhere in the country, and expected immediate help from the economically strong Federal Republic and its big industrial groups. This opinion was also shared by the majority of works councils and representatives of opposition groups – which had been formed in the period of transition from the centralist regime of the SED leadership to the market-economy model outlined in the process of the German unification.

The situation in the companies was very different at that time. There were repeated fierce confrontations between new works councils, management, and the still existant factory trade union committees after the companies' party leaderships and the workers' militias had been dissolved. The confrontational situation largely developed from formerly repressed conflicts, but also from the economic situation of the companies. As the majority of the new managements had been members of both the SED and the factory trade union committees, they lost more and more credibility when they suddenly left the party. They were called political turncoats by the workers. In many cases the managements felt compelled to sign agreements with the newly formed works councils granting them far-reaching rights of economic and social co-determination.

In other firms, with less profound conflicts, the formation of works councils was partially encouraged by management itself, which wanted them to be the old West German type of employees' representations. Under these old-style bodies, the decisions taken by the management would be legitimized, and the company's staff would work to achieve consensus and "observance of the works peace" under the works industrial-relations scheme. With the cancellation of the hitherto practised legitimization of management decisions by the national planning commission, or higher party or government bodies, insecure "post-socialist" managers tried to obtain this legitimacy via discussions with the newly formed works councils. In many cases, the managing board proposed a vote of confidence. For lack of alternatives, many former managements were backed up by the majority of their personnel; there were only a few cases in which representatives of the middle level of management took the lead. So far, the author has heard of only one case where grass-root committees that had occupied their company for a short period were able to install a top manager elected by them, and to influence the sale of their factory by the trust company. The removal of particularly hated managers, formerly called "socialist heads", was exceptional in the transitional period.

But there were also companies with active works councils that forced quite far-reaching interim rights of co-determination in content and forms

of production and in financial arrangements. Sometimes works councils felt insufficiently competent to interfere in such company-strategic questions. In part, the old factory trade union committees were pushed away by the works councils; in part, they co-existed; in a few cases, some sort of temporary division of labour was developed, based on the political constellation in the company in question.

At the inter-company level, the old FDGB trade union on the one hand, and the individual industry trade unions – who were meanwhile aiming at more independence – on the other hand, were embroiled in personal and political controversies during and after their last congress in 1990. Their generally defined object was reconstruction under a model based on the industry unions of the old Federal Republic. With the help of a G.D.R. Trade Union Act that was formulated within a short time, they tried to provide the factory trade union committees with far-reaching rights, but also to make them again the sole representatives of the workers, as their subordinate bodies. To push through this Act, the FDGB even threatened – for the first time in its existence – to call a general strike. Simultaneously, the new works councils were again deprived of their legitimacy.

This Act was also vehemently attacked by the employers' associations as an obstacle to investments because it would have resulted in a considerable reduction in managements' areas of competence, in favour of the factory trade union committees' co-determination in economic and social questions. Even more significantly, however, the new works councils, which had not been taken into consideration in this Act, also turned against it.

The G.D.R.'s subsequent accession to the Constitution of the Federal Republic and the following reunification also meant that the dual trade union and co-determination model of the old Federal Republic would be applied. In the process, both the autonomous far-reaching rights of the works councils and the factory trade union committees were abolished.

As a consequence, in the early period of staff reductions and of disintegration of the former structures of the combines (industrial groups)⁵, through industrial reorganization, there existed partially only badly functioning, and sometimes legally not legitimized, bodies of representation in the companies which made rigid action – primarily by the old and often re-confirmed managements – easy. Works councils representatives who were brought up in the old centralist spirit sometimes even accepted dismissals of colleagues without offering resistance or declaring their solidarity with those concerned. Owing to this attitude, but

⁵ German: *Kombinate*.

also out of ignorance of the possibilities of legal protection against unlawful dismissal, several works councils constituted only a slight protection for their companies' staff. In most cases, they quickly took a posture of submission to management decisions.

As a result of the adoption of the West German legal order, new elections in the companies were necessary, in line with the existing pattern and the electoral procedure. Faced with the first dismissals, the impact of economic crisis, and rising social problems, former activists of the works councils movement were frustrated; many of them did not stand in the new elections, and retired. In the aftermath, intellectuals – who are more eloquent and also often aware of the regulations concerning protection against dismissal applied for positions on these bodies. As a result, a number of East German works councils have been “intellectualized”, a phenomenon which is quite atypical for the former F.R.G., and which may open up new possibilities in the sphere of policy-making.

Initially, the West German trade unions had different views on the question whether to include only union members or to also include functionaries in the process of reforming supra-company and industry-related trade unions. Rather conservative unions, such as the Chemical Industry Union and the Mining Industry and Energy Union, decided to take over parts of the still functioning apparatus and to select from it later on, in order to be equipped with working structures for the time being; the Metal Workers' Union and the Public Service and Transport Trade Union, however, which have the largest memberships among German employees' organizations, decided to take only those members who were willing to join, and to reorganize from the grass roots.

The reorganization of the official body was taking place and promoted by temporarily delegating many West German functionaries to the East, and by training and incorporating active members of works councils into higher trade union structures. The trade unions' unification normally took place at a joint East-West trade union congress where East and West representatives were elected members of a common executive committee, according to a set ratio of distribution. When the differently structured East German trade union model was taken over, there were also disputes between the individual industry trade unions concerning the affiliation of company staffs on the fringes of various industries. In general, the reorganization processes, the replacements and resignments of former FDGB functionaries, the hesitant delegating of West German representatives and the reluctant training of East German grass roots functionaries resulted in a shortage of trade union functionaries at the middle and lower levels, and in significant delays in the creation of functioning structures. This was quite unfortunate, the more so as in this period the East

was faced with deep crisis, a new orientation in wage policies, and mass dismissals; by 1992, between 2.4 million and 4 million people are expected to be unemployed. This lack of functionaries had to be compensated for – sometimes quite sparsely – by delegating younger university graduates who often lacked experience in problems of organization, and by employing West German pensioners who had formerly acted as functionaries.

In my opinion, the East did not manage to establish responsive trade union and co-determination structures within a short time; in addition, the scope of conflicts and processes to be solved, e.g. in the organization of regional industrial policies, is much more comprehensive and complicated than in the West. West German pensioners contributed their ideas of trade union policies of the 1960s and 1970s, which were frequently focused on disputes over wage rates, in which younger functionaries were quite inexperienced. This had an adverse effect on the handling of specific problems arising in the transformation of a so-called “real-socialist” system into a capitalist one after the model of the old Federal Republic, and the handling of other questions concerning the organization and determination of the individual union members’ work and lives.

The variety of problems to be solved in this enormous structural and adaptive crisis, such as the prevention of further mass dismissals and bankruptcies, the influence of the state holding trust company in the sale of companies to private applicants, the valuation of management conceptions, the development of alternative regional economic and industrial settlement policies and the gradual approximation of East and West wage rates and social standards are a big challenge to trade-union activities and reorganization projects. Therefore, it is of almost existential importance to future trade-union action in East and West to show substantial results. This is illustrated by the fact that in 1991 Eastern wage rates will reach up to about 60% of the West German standards, though mass unemployment contributes to acceptance of lower working standards; and there are many attempts to continue an all-German process of labour flexibilization in the form of already widespread illegal loan labour, or jobs paid much lower than standardized wage rates. Equal wages in East and West Germany cannot be expected until 1995.

At present, the trade union and co-determination structures in the East seem generally to be considerably overtaxed in dealing with the new multifarious problems in both strategic-political and organizational terms. So far, the works councils’ area of competence has been mainly confined to bargaining for social benefits and severance pay. Participation in sales policies or even the development of balanced, alternative economic and political industrial and regional concepts is not on the agenda; and there are no approaches at the lower levels to such actions, either.

3. THE REORGANIZATION OF THE TRADE UNIONS, AND CO-DETERMINATION TRENDS IN THE EAST – OUTCOMES AND CONSEQUENCES FOR INDUSTRIAL RELATIONS IN UNIFIED GERMANY

The system of trade unions and co-determination bodies in the companies, now in its initial stage, is faced with the following problems:

1. Trade union representatives and works councils⁶ in East Germany seem to be overtaxed as regards their range of action and competence as well as their staff. This applies not only to the socially quite good cushioning of the structural and adaptive crisis, the hardness, duration, and progress of which cannot be foreseen yet, but also to creative influences on economic reorganization and rebuilding. Parallels were drawn with structural adaptations in the Ruhr District and in the Saarland, and with adaptive difficulties in the coal, steel and textile industries, in the course of which more than a million jobs had to be replaced. But these processes took decades; they could be balanced and cushioned with the massive help of the Federal budget, and with municipal and European funding. They were not accompanied by the collapse of a completely different political system and the loss of the historical identity of millions of people. Thus, the reorganized trade union and co-determination structures in East Germany are immediately being confronted with demands that go beyond the traditional scope of activities in recent times. This is especially the case as the crisis in East Germany comprises all spheres of economic activity: from the broken-down, helplessly obsolete automotive industry, through textiles and the dangerously polluting chemical industries to the lignite and uranium mining industry as well as machine building and shipbuilding. Apart from unemployment compensation and enormous injections of money into East German communities and federal states, there are no efficient conceptions of structural policy. It seems to be quite clear to trade unionists: without massive political intervention, financial aid and the creation of appropriate conditions, political peace in East Germany could be endangered, and economic recovery could become quite complicated.

2. At present, the split economy in Germany is characterized by prosperity in the West and deep crisis in the East, by split wage rates and still deviating social systems in East and West, as a consequence of which economic reconstruction and rebuilding seem to have become harder. Not only regional political crises but also factors like tendencies toward stagnation in the international machine tool industry are becoming noticeable.

⁶ Now according to the Works Constitution Act of the F.R.G.

Due to the precarious economic situation, many younger well-trained employees migrate from East to West, either temporarily or permanently. In 1991, more than 10,000 employees left the new federal state of Saxony monthly. In view of the exodus of qualified workers and the serious shortage of apprenticeship places for young people, the future reorganization of flexible economic structures will become more complicated, even when equal wage standards are introduced and extensive investments are made. Long-term destruction of the environment and deficiencies in the infra-structure – in other words – a lower living standard, at least in the medium run, will not bring the return of those who have left, or attract new settlers.

3. Important decisions concerning the locations of big industrial groups such as Volkswagenwerk, Adam Opel, Siemens/Nixdorf, Philips and Standard Electric Lorenz (SEL) have partially been taken already, but the dimensions of new industrial settlements and their effects on employment policies are not quite clear. At the same time, complicated and often still open questions of ownership turn out to be impeding new investments. The politically supported strategy pursued by the "trust company"⁷ state holding, of considering all justified claims of ownership at first and subsequently selling firms and plots of land to other applicants, is another big obstacle to quick investments which would have positive effects on the labour market, as are ecological rebuilding requirements which are not measurable. A law relating to the acceleration of investments facilitating the trust company's sales, and providing compensation for potential claims of ownership, has not yet shown positive effects on efficient restructuring. In this respect, precipitate and rash decisions on industrial locations have been taken which are largely irreparable. But these processes go far beyond trade-union policy-making, possibilities of intervention and competence of action. Thus, in East Germany, recapitalization and selection of industrial locations are primarily taking place with regard to factors like the availability of qualified workers at present, geographical position, and good infrastructural relationships. Therefore, all weaknesses involved in spontaneous decisions on industrial locations dictated by shortsighted market-economic considerations, including possible new ecological deficiencies, have to be taken into account. Trade union participation and capability were almost completely excluded in both sales by the trust company and the allocation of local trade rooms. This naturally may damage all the ecological and working standards which have been achieved in the Federal Republic so far. Mass unemployment and ig-

⁷ German: *Treuhand*. The biggest state-owned company in the world, founded to privatize the former nationalized property of the G.D.R.

norance of West German standards are making East German employees more and more likely to accept labour conditions as well as social benefits and wages standards which have not been tolerated by their Western colleagues for a long time. Therefore, negative repercussions are likely to be felt on existing standards.

4. Major parts of the labour force remaining in the East German regions will be deprived of their skills and qualities because of longer-lasting joblessness. As a consequence, they will only qualify to a certain extent for the developing labour market. Attempts to bridge over the period to a possible economic prosperity by means of a large-scale educational project faced various difficulties:

- Future demands on the labour market cannot be assessed yet.
- High-level training facilities are presently not available, or they are being destroyed by liquidations or dismissals in the public service; therefore the labour exchanges often feel compelled to accept offers for retraining made by private and sometimes dubious educational institutions.
- The focusing of retraining measures on the tertiary sector, particularly on the service industries as the supposed motor of a prospering economy in the future, is a problematic approach as mass unemployment will not create the spending power which would be necessary for the rapid growth of a services sector.

5. In spite of the above-mentioned decisions regarding industrial locations, e.g. by electronic and automotive groups, which are backed up by Federal Government funds, positive effects on the labour market have not been produced so far, owing to the insecure international economic situation dimensions resulting in a downward movement on the Western market, as well as to the still open question of the location of sub-suppliers. It is not clear whether they will be settled in just-in-time operations in the western part of Germany, as stable and flexibly applicable work systems have been established here as well as good infra-structural fundamentals. The staff necessary could be variably recruited from among resettlers and workers living in the East and working in the West. The first signs of settlement of sub-suppliers in the regions around the auto assembly plants, mainly in co-operation with or bought up by West German medium-sized sub-suppliers, are becoming obvious. It remains to be seen whether a sector of medium-sized companies having innovation power of their own will develop, or whether only work to third-class subcontractors will be farmed out by medium-sized West German companies. Both just-in-time production around the big assembly plants by co-operating medium-sized companies and the tendency to become elongated work-benches of West German works are emerging at present. Which of

the tendencies is prevailing will determine whether economic recovery can be expected in East Germany, or whether the new federal states will remain structurally weak regions. Without systematic structural and industrial policies, this improvement seems to be impossible.

As wages are likely to be kept low over a longer period, the establishment of peripheral sub-suppliers in Czechoslovakia, Poland, and Hungary may be encouraged by the qualified labour available there, and the lower labour standards.

6. The social expectations of East German employees cannot easily be met by the conventional West German value patterns: East Germans have not been confronted with the current stress of performance before, nor had they experienced social insecurity to the current extent, which is diametrically opposed to their traditional version of social security. Their sociocultural, practical background, determined by real-socialist experiences, will affect developing industrial relations over a longer period. The centralist orientation seems to be a sign of willingness to acquiesce in controversial management decisions without raising objections.

7. Many employees are being overtaxed and frustrated by the immediate adoption of a completely unknown legal, administrative and political system under which they are often kept from engaging in trade-union activities. The formerly forced political proclamations in favour of the Stalinist system – largely backed by the FDGB trade unions – have produced aversion to political activities, and contributed to widespread depoliticalization, individualization and dislike of being organized. Extended frustration tends to be increasingly translated into political right-wing radicalism, primarily among the youth.

8. The desire to join a trade union is basically guided by a strong need for protection and by the belief that jobs can be secured mainly by trade union action. These are areas in which trade-union competence has traditionally shown weakness. Yet, for the sake of their right to exist in future and the maintenance of the trade unions' strength of influence, it is necessary to open just these new spheres of action on a wider scale. In this connection, the Metal Workers' Union's attempt to increasingly turn to the problems of unemployment may be a beginning.

9. The East German employees' readiness to submit as well as to accept low standards results in considerable barriers to mobilization. This was illustrated by scheduled demonstrations of the trade unions in spite of the precarious situation in East Germany. So far the employees' personal obedience has prevailed, along with vague hopes for a distant future. According to a survey made in June 1991, 70% of the East Germans were still optimistic about their future (Freie Presse, June

29–30 1991). It must be taken into consideration that in 1991 unemployment is only a short-term phenomenon and many people involved still do not know how to deal with it. All these aspects are connected with lower sensitivity to technological and ecological conflict spheres, and it may be that debates and discussions on trade-union policy-making, which have been held quite successfully in West Germany, will be set back as a result of the German unification. In East Germany it is now a higher priority to have a well-paid job than it is to deal with the problems and contents of policy.

10. The East German employees' initial good will toward all West Germans has quite quickly changed into disillusionment as many employers and job brokers have proved to be charlatans. As a result of serious social problems, public opinion is increasingly turning into aggressiveness against West Germans. Dishonest competition is being recognized, and distrust is growing between East and West Germans. These quickly changing positions among the workers must also be taken into consideration in order to avoid false estimations of spontaneous individual positions that can result in a menace to trade-union achievements and successes.

11. The evolution of autonomous policy-making alternatives in all spheres of the process of transformation from a real-socialist system into a market economy system characterized by regional development, the organization of supplier relationships, vocational training and further education and environmental redevelopment schemes are required. But this novel situation can hardly be coped with by the hitherto available trade-union expertise. Within a short time, diverse investigations, discussions, and strategy development are necessary. Therefore, debate on trade union structure and alternative social defence strategies is an immediate priority.

12. At present, the restructuring of the industries in the East must be made the main field of action of trade-union influence and co-determination in the companies. This way, all decisions to be taken in these spheres will not completely be left to the trust company's sales strategies, the buyers' plans and imaginations, and the communities and the Chamber of Industry and Commerce where many "narrow-minded and anxious old cadres" are still working. Within the scope of action of these East German authorities, decisions about the future development of work in unified Germany are being taken. Any chance of trade-union influence on the trust company or on the works rehabilitation plans must be achieved via the boards of directors and works councils, and must take advantage of all rights of information and co-determination in the development of ideas and proposals.

4. PROSPECTS FOR WOMEN ON THE LABOUR MARKET AS A SPECIAL PROBLEM OF THE FORMER G.D.R. AND TODAY'S TRADE-UNION ACTIONS IN EAST GERMANY

The former G.D.R. had a very high percentage of gainfully employed women by international standards, and compared to the old Federal Republic. Altogether 91% of the women between 15 and 60 had been working for a living, or undergoing training in the G.D.R. in 1989 (Winkler 1990), as against the old Federal Republic's ratio of 54%, which included a considerable share of part-time jobs. Job-sharing or part-time jobs were exceptions in the G.D.R. as a consequence of the partially artificially produced but sometimes real labour shortage. Women with children, older female employees and others striving for part-time employment for various reasons were frequently compelled to work full-time by the officially appointed management⁸, sometimes in co-ordination with the factory trade union committees. Rigid planning based on full-time employment was another factor contributing to making impossible the part-time work which had been desired by many women. Flexibility in work for women as a particularly large efficiency reserve hardly existed in East Germany, in contrast to Western countries.⁹ This is also an important reason for the East's falling behind in productivity.

Due to system-internal circumstances, many women had undergone one or several courses of vocational training by the time of university or college graduation. Only 6% of working women had no vocational training. Owing to the low wage standard, gainful employment of women, whose average share of contribution to the family budget was about 40%, was an essential requirement for ensuring a living standard in the G.D.R. which was quite high compared to that in other COMECON countries. To almost 430,000 single mothers, gainful employment was of the highest importance; unemployed, they and their children would fall back into the lowest social classes. This applies also and particularly to women who have graduated from universities and colleges. Interviews with women, for example in the textile industry, show

⁸ Especially in the textile and chemical industries where continuous shifts over 7 days were widespread.

⁹ Official statistics showing a high degree of part-time employment should be doubted. For example, two part-time jobs were often occupied by one full-time worker in order to avoid cancellation part-time jobs at the end of the year, which was part of the usual planning methods. These jobs are reflected as two part-time jobs in the statistics (Winkler 1990).

that work ranks as one of the most important things in their lives, and that they did not work exclusively for economic reasons. To many single mothers, to single women and to many highly qualified women, the social and communicative ties which evolved in many years of work were beneficial to their egos.

At present, joblessness among women is very high. One example is the textile industry, where women were 66.9% of the work force; the total number of employed is expected to be reduced to one fifth or sixth of present levels, which means that these women lose not only an economic base but also one of the basic elements in their lives, which are mainly focused on work. New approaches to problems of self-analysis and self-fulfillment such as women's groups, women-centered alternative employers or political associations are developing slowly.

As the industry union model of the Federal Republic does not include special overlapping women's unions – such as exist, for example, in Denmark – dealing with specific feminist problems, with the organization of women's action committees against joblessness, with problems involved with the upbringing of children, etc., this system seems to be rather helpless in dealing with problems specific to women. A reaction both to rising mass unemployment, with its political and social consequences, and to the large share of women who are jobless in the East is required. Though the majority of the Textile, Clothing, and Leather Industry Union's functionaries are women, even this union had taken no women-specific approaches to the problems of women's unemployment with all its consequences. The unions' conventional way of reacting to staff reductions cannot lead to any alternative solutions, especially insofar as women are concerned. Temporary solutions such as protection against unlawful dismissal, employment schemes and retraining can only delay or disguise the problems. Works councils, sometimes unaware of the consequences of labour market policies, persuade women to participate in dead-end retraining courses, thus depriving them of the right to severance pay in the case of a dismissal which is agreed upon in the social schemes. Women's right to protection against dismissals and social demands are being substantially reduced as bodies of co-determination put up with low qualification standards which have little chances of success. Work on the problem of women's employment and on their wage-scale and social equality as well as on their security will be essential aspects of trade-union action alternatives in the course of German unification. Ways of acting and fundamental reforms in the activities of trade unions, in a field which produces specific conflicts, is a very big task in the process of reorganization of industrial relations in East Germany.

5. UNSOLVED PROBLEMS IN THE REORGANIZATION OF INDUSTRIAL RELATIONS IN GERMANY

As we analyze the various problems described above, challenges to reorganization and trade-union activities are becoming evident.

1. When structural changes in the field of the production systems and methods had been completed in the Western industrialized countries in the 1970s and 80s, the existing system of industrial relations found itself in a crisis. Adaptation and modernization were required in order to keep up with changing industrial structures and policies, as well as with the mechanisms of power and control. In this connection, trade union structures and areas of competence as well as the co-determination models of the Federal Republic, Sweden and Austria turned out to be more adaptable and flexible than those of Italy, France, Great Britain and the United States. Nevertheless, they are increasingly being faced with reformative pressure. The trade unions' bias toward the creation of industry-related wage agreements and homogeneous labour standards for various employees' and qualification groups is opposed to the process of differentiation and increasing flexibility of labour conditions and standards categorized according to employees' and qualification groups, to whether personnel are in core or peripheral spheres, and to the organization being a company or a group-related entity. The introduction of participatory labour organizing methods by modern management, the increasing utilization of the intellectual potential of manpower and women, and workers' wage and sociopolitical motivations are frequently accepted and backed by the co-determination bodies. Developments in East Germany seem to promote the shifting of industrial relations to the company level.

2. German unity descended rather unexpectedly upon the initiated debate on necessary reforms regarding collective agreements and other trade-union approaches to problems of organization and policy-making. This way, many new challenges to the trade unions concerning organization, wage rates, and policy-making were emerging. The unification of two completely different systems of industrial relations, with the real-socialist system breaking down and the market economy system just at the beginning of a process of reform, will bring up different problems in the shorter and longer terms. There are completely varied positions regarding the contents and possibilities of trade-union action in East and West, different production cultures, or the hitherto existing ability of East German workers to achieve efficient bargaining – particularly using "passive resistance" (Voskamp and Wittke 1990). These different approaches must grow together into a unified position as quickly as possible. This goal

cannot be reached merely by adopting the West German legal system, or by the import of managers and trade unionists. East German workers' way of seeing themselves in their jobs, their behaviour patterns within the working process and their hitherto gained socialization experiences have not essentially changed. The beginning of mass unemployment has resulted in increased disciplining, frequently voluntary exploitation of individual productivity reserves and acceptance of changed labour conditions. Yet, first analyses and interviews illustrated that former socialization and behaviour patterns became obvious and emerged again when jobs seemed to be quite secure.

3. An unusual feature of East German workers' socialization is their relatively close identification with their company and their way of thinking in terms of the company's efficiency; in other words, some kind of "real-socialist corporatism" has developed. In spite of the fact that "passive bargaining" was an obstacle to this corporatism in real socialism as it veiled efficiency reserves, the phenomenon continues to exist. Several authors refer to this appearance as co-operation between the company management and representative bodies as well as staff members aiming at maintaining the company as an institution (Voskamp and Wittke 1990). This mechanism is being spoilt by staff reductions and the simultaneously produced widespread understanding among "works councils" as to the "necessity" such staff reductions. This corporatist way of thinking can promote further company-related flexibility of working conditions in the future and the modification of working standards. The utilization of efficiency reserves within the process of adaptation of former "real-socialist" companies to the market economy, which will be difficult in the medium term, is possible under this way of thinking.

4. Due to the largely Taylorist mass organized production methods which were practised in many fields, and the social problems – which are not discussed here – resulting from the application of flexible manufacturing systems that had selectedly been installed in East Germany without leading to Western results, neither in pay nor in personnel policies is there any sensitization to the effects of available modern rationalization and flexibilization strategies. Consequently, for the time being it seems to be much easier in the East to automate than in the West, where it met with resistance and partially alternative organization concepts. In this connection, the high-tech euphoria produced by the party and government of the former G.D.R. may be quite beneficial.

5. The trade unions in the former Federal Republic faced a dilemma: on the one hand they were (and are) engaged in a debate on the modernization of their policy and adaptation of their structures and positions to the changing conditions in industrial relations; on the other hand they

felt compelled to apply the old unchanged union and co-determination model – which is obviously in need of reform – to the East. In addition, they have encountered a production and working culture which has largely remained unchanged in comparison to the West. East German workers have not yet developed sufficient sensitivity and mature action patterns, or even alternative ideas. The newly recruited union functionaries as well as the co-determination bodies at the company level will not be able to develop an adequate reaction to flexibilization strategies and high-tech models unless the workers, co-determination bodies and trade union structures in the East turn out to be extremely capable of learning and reacting, as a result of inner reserves. It will be important to modernize industrial relations by adapting union structures and contents. Otherwise, there will be a relapse into existentially dangerous, old and merely passive-reactivist defence strategies which open no new possibilities in policy making.

The most important problem is to ensure that the process of discussion and reform in trade-union strategies and co-determination structures will be continued. In this respect, the fusion of two different economic systems and production cultures must not be an obstacle. The question is whether it will be possible to cope with the structural and adaptive crisis in the course of this process.

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THE ROLE OF UNIONS IN INNOVATIVE SMALL AND MEDIUM-SIZED ENTERPRISES

A CASE STUDY OF FLEXIBLE SPECIALIZATION IN EMILIA-ROMAGNA

Vittorio Capecchi

ABSTRACT

This paper analyzes the relations between trade unions in the region Emilia-Romagna and the ways industrial development took place in the same area. Differences in political behaviour between local unions and local government on the one side and unions and government at a national level on the other as well as differences in welfare policies between local and national government, were taken into account in the course of the analysis. In the paper some specific terms are utilized like flexible specialization, industrial districts and urban industrial sub-systems. Three periods of time have been considered: (a) from 1900 to the end of World War II; (b) from 1945 to 1968; (c) from 1969 to the present day.

CONTENTS

1. Unions and industrialization
 - 1.1. Italian unions
 - 1.2. Flexible specialization and mass production
 - 1.3. Industrial districts
 - 1.4. Urban industrial sub-systems
2. 1900–1945: The role of unions in the foundation of flexible specialization in Emilia-Romagna
3. 1945–1968: The role of unions in the spread of industrialization in Emilia-Romagna
 - 3.1. The characteristics of industrial relations in Italy
 - 3.2. The characteristics of political and socio-economic development in Emilia-Romagna
 - 3.3. The industrial relations in Emilia-Romagna
4. 1969 to the present: the role of unions in innovative small and medium-sized enterprises
 - 4.1. Industrial relations in Italy
 - 4.2. The changes in Emilian industrial districts and urban industrial sub-systems
 - 4.2.1. Changes in international competition and new technologies
 - 4.2.2. Institutional strategies
 - 4.3. Role of unions in innovative small and medium-sized enterprises

Industrialization in Italy developed differently in the three principal areas (Bagnasco 1977). In the so-called "third Italy", industrial development has taken place only since the Second World War, and has been characterized by the diffusion of small and medium-sized firms. In this area, Emilia-Romagna is the region where industrial development, based on the engineering industry, has been most marked. The following pages will try to single out the factors which have contributed to this development – today Emilia-Romagna is economically one of the richest regions in Italy – and to identify the role unions have played in it.

Considering the peculiar kind of industrialization in Emilia-Romagna, the analysis has been divided into three different time periods: from 1900 to 1945; from 1945 to 1968; from 1969 to the present. Before a comparative analysis of these periods is developed, it is worth defining some of the specific terms which we will use.¹

1. UNIONS AND INDUSTRIALIZATION

1.1. Italian Unions

Unions started in Italy with the establishment of the *Camere del Lavoro*, a type of "horizontal" unionism that caters for all workers in a given territory (the first *Camera del Lavoro* was established in 1891 in Milano and was followed by those in Torino, Pavia, Roma, and Bologna). In 1893 these *Camere del Lavoro* constituted a *Federazione delle Camere del Lavoro* at the national level. Trade unions of a "vertical" type began in 1901; these craft unions catered, in a given territory, for people doing a given kind of work. The *Federazione Nazionale dei Lavoratori della Terra* (National Federation of Farm Workers), for example, was established in 1901, only catering for people who, in a given territory, did rural work; the *Federazione Italiana degli Operai Metallurgici* (Italian Federation of Metal Workers) was also established in 1901, and so on. Therefore, in every given territory (i. e., Milano or Bologna) there are both "horizontal" unions, which try to see as a whole the problems of all the workers in a given territory, and several "vertical" unions, which try to defend the particular interests of given categories of workers. At the shop floor level, workers were represented by the *Commissioni interne*, elected work bodies which had been established during the First World War.

Fascism came to power in 1922 and by 1926 only the fascist trade unions

¹ Parts of a former essay of the author on flexible specialization have been used in this paper. See Capecchi (1990).

were legally recognized; all independent unions were considered outside the law.

The *Confederazione Generale Italiana del Lavoro* (CGIL, General Confederation of Italian Labour) was resurrected in 1943. As Contini (1985) wrote:

It was a direct result of an agreement between representatives of the various political parties cooperating within the framework of the resistance, and the new union confederation retained its heavy dependence on these parties throughout the period of postwar reconstruction. [...] With the onset of the Cold War in 1947, however, the Italian political situation changed radically. De Gasperi, the leader of the Christian Democrats, decided to form a new government which for the first time excluded the Communists and Socialists and won a sweeping victory in the first postwar legislative elections in June 1948. [...] These events highlighted the political tensions within the CGIL and provided the occasion for the Catholic and Social Democratic factions within the union to break away and form their own Confederations, the CISL (Confederation of Italian Workers' Unions) and UIL (Union of Italian Workers).

In this way, the Italian unions' structure was formed. This structure, made up of the three confederations, is still existing and operating today. Furthermore, it is important to remember that in Italy trade unions operate at five levels: national, regional, local, area (smaller territories into which the provinces are divided), and shop level.

1.2. Flexible Specialization and Mass Production

Flexible specialization refers to a system of producing either investment or consumer goods; it can best be characterized by comparing it to a very different, Fordist model of production.² The main differences between the Fordist and flexible specialization models can be described as follows:

a) In the Fordist system there is mass production or large-batch production, while with flexible specialization, factories engage in small-batch

² The differences between the Fordist model and the flexible specialization model have been analyzed in Piore and Sabel (1984) and Sabel and Zeitlin (1985). In my analysis of the flexible specialization model in Emilia-Romagna, I pay more attention to the differences between women and men in social and economic life, to the difference between the informal and formal economy, to the way in which skills are transmitted (in technical schools, in the family, etc.), and to the process of social mobility. In this analysis, I have been strongly influenced by the research of Adele Pesce. See Capecchi and Pesce (1983); Capecchi (1987, 1989a, 1989b, 1989c); Barbagli et al. (1987); Pesce (1987, 1989).

production, producing prototypes and custom-made machinery and/or products.

b) In the Fordist model the organization of work is basically Taylorist, i. e., there is a clear separation between white-collar workers, who are in the minority, and the majority of unskilled blue-collar workers. In flexible specialization, however, the organization of work is based on tri-level co-operation between white-collar workers, skilled workers, and unskilled workers.

c) The key to the system of flexible specialization is the middle, skilled, group who come to the factory as professionally skilled workers and, while on the job, increase their professionalism with experience. The combination of experience and professional know-how permit these skilled workers to leave the factories and become small independent entrepreneurs. It is clear, therefore, that the flexible specialization model of industrialization allows for the possibility of social mobility among the working class, a mobility which would not be possible in the Fordist model.

d) Production procedures in the Fordist model are standardized as is the product. The most important element is the price. In flexible specialization, production procedures require close collaboration between the factory and the client, resulting in a custom-made product.

e) In the Fordist model production takes place in a few big factories, while in the flexible specialization model production takes place in many small and medium-sized firms organized into industrial districts and an urban industrial sub-system.

1.3. Industrial Districts

When flexible specialization is organized in a particular way it is said to have developed within the framework of an "industrial district".

If we use Marshall's (1919) definition of an industrial district, which was introduced in Italy by Giacomo Becattini (1979)³, then we have an industrial district when:

a) Production is flexible and tries to meet the different needs of clients and, if the client is a wholesaler, is able to make the whole range of the production series for which the wholesaler asks.

b) There are many small firms in a given territory which have the same type of flexible production.

c) Among these small or medium-sized firms, some sell their products

³ For a more recent discussion on industrial districts, see Becattini (1987, 1989); Brusco (1989); Regini and Sabel (1989).

directly on the market, while others carry out particular processes or produce component parts of a product; "final firms" and "stage firms" interact with each other (Sabel 1982).

d) The separation between those firms which sell their products and those which act as sub-suppliers to other firms is not rigid: a small firm can, at a given moment, be a sub-supplier and, at another, a seller;

e) The relations between firms that sell on the market take the form of an interweaving of competition and co-operation: this means that the firms do not fight one other but try to find market places for new products without having destructive effects within the industrial district.

f) The zone is so defined because it refers to a very limited geographical area which is specifically characterized by a certain dominant type of production.

g) There is a strong interconnection between the district as a production reality and the zone as a mixture of family, political, and social life.

On the basis of this definition, it is possible to identify districts in Emilia-Romagna wherein a small town corresponds to a predominant type of production: Carpi, in the province of Modena, for example, is characterized by knitwear clothing production whilst Sassuolo, another town in Modena, is characterized by ceramic tile production.

1.4. Urban Industrial Sub-systems

We talk about *urban industrial sub-systems*, however, when there is a situation which has the characteristics of points (a), (b), (c), (d) and (e), but not of (f) and (g). For example in the city of Bologna we can identify many industrial sub-systems producing, measuring, packaging, and wrapping machines or motorcycles, but no one of these sub-systems characterizes the whole productive system of Bologna. Carpi is identified with knitwear, but Bologna is *not* identified solely with measuring, packaging, and wrapping machine production.

2. 1900–1945: THE ROLE OF UNIONS IN THE FOUNDATION OF FLEXIBLE SPECIALIZATION IN EMILIA-ROMAGNA

In Italy, the period from 1900 to 1945 includes two different phases.

A first phase, from 1901 to 1914, when the Socialist Giolitti was at the head of the Italian government (first as Minister of the Interior and afterwards as Prime Minister), was characterized by a policy more favourable to the working classes.

In the second phase (after the First World War), when Fascism came to power (Mussolini became Head of State in 1923) the political parties which had been democratically elected and the independent labour unions were put outside the law. Unionism had spread widely in Emilia-Romagna since the beginning of the century. It was a unionism deeply rooted in the Socialist culture, widespread not only in the urban areas but in rural ones as well. This kind of unionism constitutes a strong element of cohesion; it can therefore be considered as one of the seven factors which help to explain the kind of industrialization which spread after the Second World War.

Unionism and Socialist Culture in the City and in the Country

During the early part of the century female rice growers and male farm-hands in Emilia-Romagna became involved in rural struggles. These were so important that between 1904 and 1925 the leadership of the *Federterra*, the union federation which *includes all* farm workers (farm-hands and share farmers), was entrusted to a woman from the province of Bologna named Argentina Altobelli. Socialist ideas spread in both the cities and the countryside of Emilia-Romagna with the establishment of the *Camera del lavoro* and the formation of provincial associations of farm labourers. By 1909 (Baldissara 1987), the Socialists represented 40% of the electorate, and when universal male suffrage was introduced in 1913 four provinces in Emilia-Romagna (Bologna, Ferrara, Reggio Emilia and Parma) voted Socialist.

The presence of this kind of unionism and Socialist culture in rural Emilia-Romagna led to the creation of co-operatives. The wide range of these co-operatives shows how a part of the Emilian entrepreneurship of today originates directly from the union movement.

The Communist party, which was created in Italy in 1921 (after the split of the Socialist party), from its beginning attracted a large following in Emilia-Romagna. The Emilian Communist party derives from the inter-lacing of two cultures: the anarchic-revolutionary culture and the co-operative-reformist one, with the second one becoming progressively prevalent over the first one.

During the 1930s Fascist forces (D'Attore 1980) tried to create conflict between the two principal types of farm workers, farm-hands and share farmers, just as they did in the city between skilled and unskilled workers. However, the resistance movement to Fascism during the Second World War brought a reconciliation among the greater part of the industrial and agricultural working classes. Consequently, by 1948 Emilia-Romagna was "red" with 52% of votes going to the Communist and Socialist parties as compared to an average of 31% for the rest of Italy.

University and "Università Popolari"
(Socialist Teaching Centres for the Working Classes)

The University of Bologna (Tega 1987) concentrated various disciplines of intellectual knowledge that advocated an important, fruitful relationship between the social and economic communities in Emilia. This concentration in a "red" province favoured an active role by the intellectual groups, who, utilizing Socialist aims, tried to spread both scientific and non-scientific culture in the interests of all social levels. As a consequence, in 1901 the *Università Popolare Giuseppe Garibaldi*, one of the most important of its kind at a national level, was founded in Bologna.

A Rural Area Characterized by the Presence of Small Entrepreneurs

During the period from 1900 to 1945, Emilia-Romagna remained a region strongly marked by agriculture. The percentage of the active population in agriculture was 65% in 1901, 61% in 1931 and 52% in 1951, whereas in the rest of Italy the corresponding figures were 62%, 52% and 42%.

The composition of the population working in agriculture in the north was very different from that in the south. According to the 1901 census, only 40% of the population working in agriculture in Emilia-Romagna were male or female wage workers (farm-hands or farm labourers); 60% were workers on contract as share farmers (*mezzadri*) or on rented land, or were small farm-owners. Thus, 60% of the population working in agriculture had the experience of small farm entrepreneurship. Another significant factor is that the experience of people in the countryside (especially that of women) extended beyond cultivation or animal husbandry to include proto-industrial experience in hemp processing, weaving, and straw braiding.⁴

The Presence of Industrial and Proto-industrial Districts

In many small towns of Emilia, which often served as centres of rural areas, industrial and proto-industrial districts were already established during the period 1900–1945; these would be continued or adapted during the following period.⁵

⁴ The life in rural areas of Emilia-Romagne in 1900–1950 is described in Adami and Tamagnini (1983); Broccoli (1979, 1988); Poni (1982).

⁵ The history of the industrial district of Carpi is described in Cappello and Prandi (1973).

The Transmission of Technological Knowledge by Means of Technical Schools

The most important transfer of knowledge for the industrial development of Emilia-Romagna region has been in the field of mechanics. In Bologna this was facilitated by the work of two intellectuals, the experimental physicist Giovanni Aldini and the economist Luigi Valeriani⁶, who, at the end of the eighteenth century and the beginning of the nineteenth, were inspired by nations like Great Britain and France. During their trips to London and Paris they documented the methods of teaching advanced technology used in these countries.

When they died, in 1828 and 1834 respectively, Aldini and Valeriani willed their property to the city of Bologna for the purposes of opening technical schools for the diffusion of mechanical know-how. Consequently, in 1839, the Technicals Schools of Bologna were established with the co-operation of the municipal administration, the University, and the Association of Artisans. In 1878, these schools became the Institute of Arts and Crafts Aldini Valeriani, where technical and practical subjects were taught. Other technical schools of this type were the Corni Institute in Modena, founded in 1921, and the Alberghetti, founded in Imola in 1881. All this helps to explain the skill in mechanical design and planning found in this region. The technical school for agriculture founded in Reggio-Emilia in 1879 is another example.⁷

In the small industrial and proto-industrial districts in this period the transmission of knowledge occurred through apprenticeships, or through schools where specialized workers acted as teachers. In Carpi, women straw braiders taught their techniques on the job and in schools; in Sassuolo the same was done by potters. In the other cities of Emilia, specialized staff members taught embroidery, tailoring and sewing. In Bologna, the Elisabetta Sirani Technical School was established by a women workers' association in 1895. The transmission of more complex knowledge was carried out by scholars connected to the university world.

An Industrial Society Oriented Towards Flexible Specialization

In the period 1900–1945, there was limited industrialization in the regions that remained essentially agricultural. However, there were many industrial districts and the beginnings of urban industrial sub-systems in the engineering industry organized on a flexible basis. In Bologna, for example, the majority of industries were oriented towards the production

⁶ The history of Giovanni Aldini and Luigi Valeriani has been described in *Comune di Bologna* (1980).

⁷ The history of Antonio Zanelli is told in Cafasi (1979).

of custom-made machinery or the production of prototypes of automobiles or racing motorcycles.

A Different Power Relation Between Men and Women

In all the aspects considered so far, the relationship between men and women is more equal than in other regions: in Emilia-Romagna women have had more power than in other regions of Italy (Pesce 1987, 1989). They were the initiators of small firms in sectors like clothing and ceramics. In engineering, women were excluded from technical schools and therefore never participated in machine projects; however, they participated in the management of firms, especially small ones.

3. 1945–1968: THE ROLE OF UNIONS IN THE SPREAD OF INDUSTRIALIZATION IN EMILIA-ROMAGNA

It is very important for our analysis to understand what happened in Italy during the period between the end of the Second World War and 1968. There are two main points which characterized this period. First, Emilia-Romagna diverged more and more from most of the Italian regions: in politics, in its kind of industrialization, and in its socio-economic model of development. The second point has to do with the big changes involving Italian unions which caused a deep transformation in industrial relations at the end of the 1960s.

3.1. The Characteristics of Industrial Relations in Italy

The first years after the end of the Second World War (1945–1947) were a period characterized by the reconstruction, by large unemployment, by major social and political struggles, and by coalition governments of all the antifascist parties.

After the liberation of Italy, a wave of major strikes spotlighted the problem of shop floor bargaining. At the same time, however, these struggles tended to increase the differentials in wage rates existing between industries and regions.

As Contini (1985) wrote, in the face of this risk of fragmentation among workers, the egalitarian orientation of the CGIL

... led it to conclude a series of agreements with the *Confindustria* in 1945–6 which concentrated all bargaining activities at the centre, thus reducing wage differentials at the cost of abandoning the plant level.

After the split of CGIL in the 1948, the three new unions (CGIm, CISL, and UIL) emphasized their political features but nevertheless found it necessary to negotiate agreements with the *Confindustria* at the national level. Industries were very strong, and they could afford to pay very low wages because of unemployment. In 1948, 14 wage areas had been fixed: the same job was paid 29% less in Sicily than in a northern region such as Lombardy. Trade unions accepted these wage areas since they hoped enterprises would be encouraged to invest in the southern regions, helping to diminish unemployment. Furthermore, in this period there was still a wage differential between male and female workers. In 1960 the number of wage areas had decreased from 14 to 7 and the wage differential between male and female workers was reduced, but not until 1969 were wage areas abolished and wage equality between men and women formally established.

Also in the 1950s, Italian unions chose not to develop plant-level organizations. Lacking an effective organization at the factory level, the working classes defended themselves utilizing the law. In fact, the Civil Code retained certain clauses regulating piece rates; and the presence of this law, theoretically protecting workers against rate cutting, produced the *informal shop floor bargaining characteristic of postwar Italy*. As Contini (1985) wrote,

... although possible in principle an appeal to the courts over piece-rate payment was very difficult in practice. As a result, workers were pressed to find some structure in the factory which could enforce their legal rights: the *Commissioni interne* (re-established after the war but not engaged in any direct bargaining) and Communist factory cells came to assume this role.

By the end of the 1950s, the political situation was changing. In this context, the industrial unions resumed their role in taking the initiative, and in 1956 the National Agreement of Metal Workers (which had not been renewed since 1948) was signed. In the same period, a large intellectual movement prepared the ground for a progressive liberalization in the legal framework governing industrial relations. New laws were enacted. In 1956 the status of "apprentice" was legalized: industries were able to give professional training to young workers in exchange for the possibility of paying them less during the period of professional training. At the end of the 1950s and in the early 1960s, labour subcontracting was prohibited and temporary employment contracts were limited. These two kinds of relations between employer and worker involved most of the migrants from the south of Italy working in the big factories of the north.

In 1959 the *erga omnes* law extended the coverage of collective agree-

ments to *all* workers, even to those who worked in enterprises not belonging to the *Confindustria* (most of the small-sized enterprises, for example). Finally, a law stipulating that employers had to demonstrate “just cause” as a basis for dismissals was approved by the Parliament in 1966. This law was clearly a first point of arrival. But it was, at the same time, the starting point for many leftist-democratic lawyers which would yield some years later, during an extraordinary season of struggles, the *Statuto dei Diritti dei Lavoratori* (Charter of Workers’ Rights).

Towards the end of the 1960s, industrial relations in Italy were deeply changed. There was much less unemployment; the policy of low wages and of total enterprise control over workers’ productivity during the 1950s could not continue. The “hot Autumn” was drawing near.

3.2. The Characteristics of Political and Socio-Economic Development in Emilia-Romagna

The main political and socio-economical characteristics of Emilia-Romagna in the 1950s and in the 1960s can be summed up as follows:

The Construction of a Political Community in the Region

After the Second World War, the Italian Communist and Socialist parties had an absolute majority and governed the Emilia-Romagna region as well as the cities of Emilia.⁸ One of the peculiarities of the Italian Communist Party in Emilia, which has distinguished it from the Communist parties of France and Spain, is its emphasis on sustaining the creation of small businesses and helping salaried workers to become self-employed and create small enterprises. The Communist Party and the Socialist Party have the majority in Emilian unions and also represent the majority in the organization of small artisans’ businesses and co-operatives. These associations of artisans and co-operatives, co-ordinated by people belonging to the Communist and Socialist parties, became extremely important centres of economic power, and served as bases for training in business and in the management of small enterprises.

By this means a kind of Communist and Socialist “political community” was formed wherein people of the same political leaning came to be in charge of local and regional government, trade unions, small artisan associations, and firms organized as co-operatives.

Women have played an active and recognized role in this community

⁸ For a history of a political community of Bologna, see Arbizzani (1961) and Arbizzani et al. (1988).

(in contrast with other regions) and the local administration in Emilia-Romagna has provided many social services such as day-care centres or kindergartens in order to allow women with small children to participate in the working world. Great attention was devoted to social policies (with the help of Catholics in the region), speculation in construction was resisted and small businesses were given support, thereby increasing social mobility as well as assisting economic development.

A Big Change Within the Work Force

In this period, industrial development was very rapid in Emilia-Romagna. The proportion of the population active in agriculture dropped from 52% in 1951 to 20% in 1971 (a decrease of 32%), and that of industrial workers increased from 25% to 43% (an increase of 40 per cent); during the same period in the rest of Italy, the variations were less extreme (a decrease of 25% in agriculture and an increase of 12% in industry). During this 20-year period, emigration to other regions and countries was static. There was, however, internal movement from the mountain areas and the smaller centres to the larger cities and towns.

Per capita income increased, as did Emilia-Romagna's share of total Italian exports. The latter rose from 6% in 1963 to 8.4% in 1974, with radical changes in the type of goods exported. In the 1950s Emilia-Romagna exported agricultural products and clothing, while in the 1970s exports were primarily machines and mechanical products. The number of employees in the engineering industries as a percentage of total industrial employment rose from 17% in 1951 to 32% in 1971 and to 41% in 1981, the other main sectors being textiles, clothing, and food (Barbagli et al. 1987).

Gradual Agricultural Transition

The way in which agriculture was transformed (cf. Fuá and Zacchia 1983) also contributed to a higher standard of living in this region. The drastic fall in the agricultural population did not, in fact, mean an end to agricultural production. There was a change of direction towards capitalistic agriculture which brought about a dramatic increase in productivity per hectare.

A process of industrialization based on the diffusion of middle-sized, small, and very small firms took place in rural areas as well as in the towns; the majority of farming families could leave the agricultural world without too much difficulty. Within these rural areas, some proto-industrial activities became industrial, and the industrial areas within the small towns became increasingly important.

The Development of the Engineering Sector

The heart of industrial development in Emilia-Romagna is represented primarily by the engineering sector, exports from which exceeded (in monetary terms) those from agriculture and other industries. In the earlier part of the century, there had only been a few industries characterized by versatile production in towns such as Bologna, Modena, and Reggio Emilia. This versatility was used during the two world wars in manufacturing war products that surely contributed to the strengthening of these industries. After the Second World War, this type of know-how, based on technical school education and professional training in the firms, was strongly encouraged by a strengthening of market demands, as all the industries producing consumer goods required machinery for the packaging of their products.

Flexible production in Emilia was therefore oriented towards the production of machines for different types of industry and agriculture, including measuring, packaging, and wrapping machines that allowed firms which produce foodstuffs, pharmaceutical products, or cigarettes to have custom-made equipment, ranging from cigarette packaging machines, through blistering machines for pharmaceutical products, to packaging and wrapping machines for all types of foodstuffs (cakes, sweets, tea, etc.). A very high market demand and the possibility of undertaking production with limited capital made extended development possible. This development was of an urban industrial sub-system type, and, as a consequence, there was an increase in the number of medium, small, and very small companies.

Local Government Policy Towards Small and Medium-sized Enterprises

During the postwar period, the small firms in Emilia-Romagna have found backing and assistance for their growth from the local authorities. The local governments of Emilian cities adopted several industrial policy measures which took the form of a kind of town planning: infrastructures and industrial areas were created for small firms. These measures, together with those emphasizing social policy (professional training, social services, public transport, etc.), will have a very favourable effect, increasing the scale of social mobility from the working classes to small entrepreneurial ones.⁹

⁹ As Linda Weiss (1988) has written, analyzing European national government policy towards small firms, the Italian government is the most favourable in Europe to small firms, especially if we compare it with the French and German governments. The best illustration of this assumption is the Artisan Statute introduced in 1956.

3.3. *The Industrial Relations in Emilia-Romagna*

During the period of the right-centrist national government, the labour movement in Emilia-Romagna faced a strong political repression of all workers who were members of the leftist parties and of the CGIL. The results of this repression, however, were opposite to those which had been expected by the Christian Democratic Party. The repression consolidated the leftist political identity of the region against the national government and increased adherence to the CGIL, which became the absolute majority union in Emilia-Romagna.

If in Italy "until the late 1960s job control by workers had been confined to limited informal bargaining" and "industrial relations had been dominated by broader political interests" (Contini, 1985), in Emilia-Romagna the situation was different. The union which asserted itself after the struggles against the repression of the early 1950s was surely "political"; it was also concrete and pragmatic. Each single part of the "political community" we mentioned could act with comparative autonomy. Trade unions carried out their tasks, and their action was legitimated.

Concerning the contradiction between the centralized model of organization and action and shop floor bargaining, which is very sharp at the national level, the Emilian union does not have to face large companies trying to recover their control over the work force; the diffusion of small and medium-sized firms within urban industrial sub-systems and districts makes centralized bargaining at the territory level effective. In this kind of bargaining, workers often introduce a high level of informality; this informality, however, is part of a system recognized both by unions and by employers.

The strong "horizontal" structure of the CGIL in Emilia-Romagna encourages the diffusion of solidarity among workers of small firms in a given territory and, at the same time, rouses in each small firm the desire for interfirm co-operation, if only as an answer to the union initiative. In fact, the associations of small firms become very influential, and they tend to form national organizations (for example, the CNA, National Confederation of Artisanal Enterprises).

Another important aspect, as we have already mentioned, was the peculiar kind of work force, the great degree of autonomy and space for workers' self-management that employment in small firms permitted. This autonomy produced a high degree of workers' social mobility, with frequent changes in status from that of employee to that of employer and vice versa. Often these different statuses existed in the same family, giving birth to a complex structure of social classes and

leading to a sort of "complicity" between skilled workers and small entrepreneurs. Trade unions must take into account this "complicity" (Capecchi and Pesce 1983).

The Emilian union was therefore less "conflictual" and more "contractual" than trade unions in the rest of Italy. It managed (much more than elsewhere) to apply the strategies developed by national unions and to exert real control over some specific aspects of work conditions and on the enforcement of new labour laws (for example, those concerning apprenticeship).

Emilian unions can do that because they are not required to completely take care of the general conditions of workers. This role has been played by the local authorities, whose social policies (quality of housing, environment, health, cultural activities, kindergarten, etc.) are a very important "local social wage". Thanks to this social wage, Emilian workers' lives are on the average better than workers' lives in other Italian regions.

We can conclude by saying that there are two main points which distinguish the industrial relations in Emilia-Romagna and which have their roots in the early postwar period.

On the one hand, the union protects unskilled workers (women for the most part) against dismissals and the piece-work system, and induce owners to respect the laws (on apprenticeship, etc.). On the other, it leaves space for the formal and informal bargaining carried on by the skilled workers in the more innovative firms. In fact, it is worth remembering that in Emilia-Romagna many enterprises (most of them engineering industries) had their start in the period 1945–1968. Most of these enterprises were established by skilled workers who had a technical background and were able to project it onto a larger scale. In these new firms (all small-sized at the beginning), the owner, who once was a worker himself, works side by side with the skilled workers. There is a deep collaboration between them which creates a very different kind of industrial relation from those available in the largest factories.

It must be added also that in medium-sized firms the large number of skilled workers makes them stronger in bargaining than unskilled workers. In consequence, Emilian unions are on the whole quite different from the trade unions which we find in the large northern companies, where the Taylor-Ford organization of work diffuses the standing of the unskilled worker, who is very weak in bargaining.

4. 1969 TO THE PRESENT: THE ROLE OF UNIONS IN INNOVATIVE SMALL AND MEDIUM-SIZED ENTERPRISES

In Italy the debate on industrial relations has centred mainly on the experience of large firms and on the central political system. Productive structures different from the large firm were usually considered as if they were not covered by industrial relations. In reality, however, small firm development has been a crucial aspect of the Italian economy in recent years (Triglia 1990).

4.1. Industrial Relations in Italy

If we consider the changes involving Italian trade unions in the period from 1969 to the present, we can distinguish two different phases: a) the period 1969–77, characterized by great union achievements, by the unitary action of the three confederations, by greater strength of the industrial vertical unions compared with the horizontal ones, and by increased rates of unionization; and b) the period from 1978 to the present, characterized by the recovery of a centralized union policy, by the end of union unity, by a drop in the rates of unionization, and by less strength of the industrial vertical unions compared with the horizontal ones.

In 1969, the struggles in the factories were so widespread that people refer to the “hot autumn of 1969”.

The contracts of 1969 created shop steward committees (*consigli di fabbrica*), formed by freely elected representatives of workers who cannot be dismissed for political reasons. Wage areas were eliminated, and full wage equality between male and female workers was reached. A greater common level in wages was established (with the elimination of individual piece-work): wages were grouped in accordance with given classes of professionalism. Some classes of wage and professionalism are common to blue collar and white collar workers.

This union organization established at the plant level is characterized by a deep collaboration among the three Confederations. The metalworkers unions decided to join, forming a single organization (the FLM).

Furthermore, in this phase of “unitary struggle” vertical unions (such as the metalworkers’ union) became stronger than horizontal ones. Bargaining at both firm and area level became more important than centralized bargaining at the national level, and at the beginning of the 1970s the regional structures of industrial unions were created in order to co-ordinate action and establish a link among the specific regional situations.

At the national level, however, there are also some important initiatives. The gains reached by the trade unions through bargaining are officially legitimized with a labour law promoted by leftist jurists and enacted by the parliament in 1970. This law, called the Charter of Worker's Rights (*Statuto dei Diritti dei Lavoratori*), concerns all workhands in private industries (except for artisan enterprises). The Charter prevents groundless dismissals, protects union activists from discrimination and victimization in the workplace, defends the right to education, and establishes new rules for the employment bureaus.

After 1969, Italian trade unions became more and more important and the rates of unionism increased more and more; CGIL membership went from 2,461,000 in 1968 to 4,528,000 in 1978. Union actions took more different directions. Trade unions fight to protect workers' health in the workplace started in 1969 and attained important goals – first of all, the right to send confidential experts into the factories. By talking to the workers, these experts can identify unsafe practices and materials in the workplace and the stress deriving from too rapid a working pace.

A further gain concerning the right to education was reached by the trade unions in 1973: the so-called "150 hours" (150 ore). This measure provides that workers (especially those who have not finished compulsory school) can finish their studies using, in a one-year period, 150 hours of their free time and 150 hours of their work hours.

In this same period, trade unions got in touch with the women's movement, and several feminist initiatives began in the trade unions to better conditions for women in the workplace. These initiatives also led to new forms of women's organization *within* the trade unions: the women's committees which spread at all levels (national, regional, sector, shopfloor, and so on). The FLM (unitary union of metalworkers) is one of the first unions in which these initiatives took place.

At the end of the 1970s, national unions moved their attention from shopfloor bargaining to the political theme of the great reforms necessary in Italy. It is important to remember that in 1975–76 the Communist Party made enormous electoral gains: for the first time since 1947 a coalition was formed which was supported by the PCI, officially described as a "government of national unity". This political change affected trade unions' choices, especially the CGIL's: for the CGIL the entry of the Communist Party into the government coalition is the only possible political goal of the workers' struggles.

In 1978 the CGIL launched a new line reversing the unions' former strategy. This new strategy, known as the "EUR line" (after the Roman exhibition grounds at which it was adopted), presented a policy of necessary sacrifice for the workers in the interest of economic revival and

investments in the underdeveloped southern regions. For the first time since the Hot Autumn, the union's defence of workers was relaxed.

The economic crisis, the strong inflation, the outset of the technological changes which would be spreading in the 1980s, and the attempts of employers to re-establish managerial authority and destabilize the shop steward organization in the plants created a situation in which industrial relations were politicized and centralized again. But the new line remains at the programmatic level, with few practical achievements to its credit. In this phase, the limits of what has been considered the main feature of union action in Italy come out – a system characterized by a *bipolar structure*, with both centralized and decentralized bargaining: on the one hand, general union representation and politicization of industrial relations at the national level; on the other, general workers' representation and an high degree of conflict in the workplace (Della Rocca 1987). At the beginning of the 1980s, the unions at the national level found themselves in a dangerous impasse. At the same time, unions' structures at the plant level have gradually lost their capacity for mass mobilization. According to many union scholars, the decline of factory militancy is a consequence partly of the increasing aggressiveness of management, and partly of the determined efforts of the union leadership to shift conflict from the shop floor to the political arena. However, this decline is also the product of an ideological crisis among the shopstewards themselves, resulting from the failure of the highly politicized struggles over work organization to bear practical fruits of either a revolutionary or a reformist variety (Contini 1985).

In 1980, the defeat of the Fiat 35-day strike marked the end of a phase. In this strike the union leadership was forced to call off their struggle as a result of the so called "march of 40,000", an enormous back-to-work movement led by foremen and white-collar workers. In this defeat trade unions paid for their scanty representation among white-collar workers and technicians and for the prominence given to unskilled workers at a time of deep technological and organizational change on the part of the large industrial companies, when several industrial sectors are declining and tertiarization is more and more increasing.

In 1983, a "concordat" (within what has been called the "triangular concertation") was signed between government, unions, and *Confindustria* (National Employers' Confederation) which *promised* to transform Italian industrial relations (especially concerning the reduction of wage indexation and of shop floor bargaining).

In 1984, the government (the so-called *pentapartito*, a coalition without PCI, which supports industrial reorganization and reduces workers' wages without starting a programme of reforms) chose unilaterally to cut

the sliding scale, arousing workers' protests. The Communist Party, which after the defeat of the coalition of national unity had returned to the line of strong opposition, proclaimed a referendum among all workers against the government's decision. Only the Communist leadership of the CGIL supported the referendum, against the advice of the Socialist leadership of the CGIL, of CISL, and of UIL. It was the final breaking union unity, which had already been undermined by the Fiat defeat.

The trade unions' decline has continued during the whole of the 1980s. The figures for the rates of unionization are very striking. From 1977 to 1987 the Italian membership of the three confederations went from 7,225,000 to 6,065,000 – a drop of 1,160,000 workers in ten years. If the growth of the services sector, the so-called tertiarisation, weighs in the decrease in the rates of unionization, there is also a strong political factor – the crisis in perceptions of unions' representativeness.

Today a recovery is recorded, though a difficult one. The three Confederations (CGIL, CISL, and UIL) talk again of close collaboration, and the watchwords are solidarity among all workers, rights for individuals, and co-determination. Since the fall of the Eastern European Communist regimes, the most important element in the Italian political situation is the transformation of the PCI into the Left Democrat Party.

In this new phase, will the ambivalent, unstable, and peculiar relationships between Italian unions and the political system continue?

4.2. The Changes in Emilian Industrial Districts and Urban Industrial Sub-systems

In the period from 1969 to the present, the main characteristics of the industrial system in Emilia-Romagna remain unchanged: flexible specialization and a close collaboration between the firm and the client. On the other hand, the mass production factories are moving toward a more flexible system of production. The small and medium-sized firms organized into districts and urban industrial sub-systems must face increasing international competition, technological changes, and the process of tertiarization.

4.2.1. Changes in International Competition and New Technologies

The dissemination of electronics and informatics has had enormous repercussions on the industrial system in Emilia-Romagna (Capecchi 1989c; Brusco 1989). There are two closely linked reasons for this: the increased competitiveness of the big multinationals, and the need for a complete reconversion of the engineering industries which predominate in the re-

gion. The increased competitiveness of large firms is very important. Until recently, the big Fordist-type units, such as Fiat in Italy, had inflexible production lines; the replacement of one type of product with another was slow and very costly, whether in terms of time or of work organization.

Today high technology allows even big engineering firms to change their type of product without particular problems or loss of time. Industrial development in Emilia-Romagna between 1950 and 1970 occurred in a context of competition only with other European or American small-series industrial producers, and without competition from large-scale industry. Today, however, only some multinationals can compete in the production of capital goods in limited series which is typical of Emilia-Romagna.

Actually, flexible specialization in Emilia-Romagna has established very close links between producers and consumers, and the international competition finds it very difficult to break these links. Nevertheless, the competition increases, and Emilian firms must face three kinds of innovation: product innovation, innovation in the production process strictly speaking, and innovation in the management and organization of the different functions of workshops and of work.

The search for "total quality" raises the problem both of innovation in management and organization and of reorganizing the links between the firms which make up a sub-system. This leads to the standardization of procedures in order to reduce costs. These are the difficult problems which firms and sub-systems must solve in order to establish ever-tighter links between marketing, programming and production.

There is thus a phase of great technological and managerial change which corresponds to the great social changes taking place at this time. One of the most important changes is the increase, in the younger generations, of the level of education of women, who are reaching higher scholastic levels than those achieved by young men. Women have thus been able to enter tertiary professional activities (today in continual expansion) and top positions in the management of small companies linked to the engineering industry.

4.2.2. Institutional Strategies

By the end of the 1980s, the region had experienced an increase of exports, a growth in the gross regional product, and high levels of employment. Significant to this success, and to dealing with current problems of change, are the strategies applied by all the institutions of Emilia-Romagna, including the local and regional administrations, unions, associations of

small enterprises, co-operative leagues, industrialists' associations, and universities. The institutional strategies are in several directions: flexible organization of services to firms; professional training; policy of increasing association among small firms.¹⁰

4.3. Role of Unions in Innovative Small and Medium-sized Enterprises

As we have already mentioned, the principal characteristic of trade unions in Emilia-Romagna is that they are more pragmatic than the national ones, less conflictual and more contractual. The persistence of community values drives trade unions to find solutions involving other institutional actors: regional and local authorities, artisans' associations, and so on. The role of the institutional context is considered an important variable in increasing development.

The problems trade unions have faced since 1970 are the following ones.

Deep Knowledge and Control of the Technological and Organizational Changes in the Industrial System

In order to play an active role in local industrial relations, Emilian unions have created "bureaus of studies" (*ufficio studi*), with the collaboration of professors from different universities. The first one was set up in 1974 by the Federation of Metal Workers of Bologna.¹¹ These bureaus aim to intervene both in production processes and in the organization of work. During the 1970s, most of their initiatives concerned engineering industry. Many reorganization plans were worked out, focusing both on given sectors – i. e., textiles and clothing, foundries, farm-industry – and given companies such as Ducati and Lombardini in Bologna. At the beginning of the 1980s, the internal strives among CGIL, CISL, and UIL brought "unitary" bureaus of studies to an end, and research activities have been suspended for some years.

In the second half of the 1980s, however, Emilian trade unions resumed their interest in economic and political research, following the "codetermination line". The bureaus of studies of the Federation of Metal Workers and of the *Camere del lavoro* of Bologna are currently reflecting on industrial districts and on the organization of work.

¹⁰ On professional training and institutional strategies in Emilia-Romagna, see Capecchi (1987).

¹¹ Vittorio Capecchi had the responsibility for the regional and provincial "bureaus of studies" of metal workers' union from 1974 to the time of the union split.

Search of Alternatives for Firms in Crisis

When in the 1970s trade unions created their regional structures, the bureaux of studies were organized on a regional level. The Federation of Metal Workers' regional bureau of studies analyzed many industrial sectors. Through this analysis of the regional situation, it tried to intervene in national policy, trying to move the investments of the larger companies (such as Fiat) from the northern and central regions of Italy to the southern ones.

During the 1970s, many Emilian firms of different sectors (engineering industries, textile, etc.) passed through a crisis both of market and of work organization caused by technological changes and international competition. Emilian trade unions (especially the metalworkers') adopted the strategy of the "production conference" (*conferenza di produzione*), in which the bureaux of studies, the political leadership of the trade unions and technicians, blue- and white-collar workers analyze the sector or the company in crisis and write a study which contains alternative proposals about production and organization of work from the trade unions' point of view. In a production conference this study is publicly shared with employers and political parties, who can discuss and advocate or oppose the trade unions' proposal.

These "procedures" are still used today when single firms or districts are passing through a crisis.

Working for Changes in the Districts and Industrial Urban Sub-systems

In the 1970s, after the Hot Autumn struggles, the large companies were regarded as central by trade unions at the national level, both as a site of power and capital management and as the privileged battleground between capital and labour, the only place where the workers' movement is able to score some success (Brusco and Pezzini 1990).

Along these lines, at the beginning of the 1970s, trade unions in Emilia-Romagna regarded small firms (all of them, without distinction) as the result of the decentralization of large companies. This position (thanks also to the analyses of the bureaux of studies) has been changing since 1975. Trade unions have begun to understand the differences existing among small and medium-sized firms according to the district or the sub-system they belong to. Trade unions understand that in the majority of cases small firms are not marginal (as had been supposed); that they are able to make use of new technology, to penetrate international markets and to pay salaries comparable to those paid by large companies.

Union initiatives on technical-organizational innovation take place primarily by pushing the more innovative firms to acknowledge the higher

level of technical skill (the control of complex machinery, such as numerically controlled machines) which the "new" process of production requires.

In the more innovative small and medium-sized firms, work is regarded by unions as a possibility for individual and group development, open to qualitative improvement. Bargaining at the firm level increases, and workers in small business are involved (as had not happened before) in the process of formulating the bargaining platform at the national level. At the area level, many initiatives are realized in order to equalize workers' rights in the small firms with those existing in the largest industries (the so-called "integrative bargaining").

This union action plays a very positive role since it drives small firms to innovate themselves.

"Codetermination" in the More Innovative Small and Medium-sized Firms

In the late 1980s, Emilian unions launched the new policy line of "codetermination". This line draws inspiration from industrial relations in Sweden, using as well Italian experiences with the organization of work and the rights to the disclosure of information. These latter rights (requested and obtained in 1975 through the national bargaining) give access to information on investment programmes, innovation, and technological modification. With these rights to verify and examine information, the unions intend to attempt to control the expected consequences of technological innovation with respect to workers' work condition, mobility and employment. On the part of the companies, however, in most cases the disclosure of information has only been observed so far as to inform unions of decisions already made.

The new "codetermination" (also asserted at the national level by the CGIL at its last congress), on the contrary, means discussing the decisions *before* making them, in order to influence work conditions; unions and enterprise managements, although each of them have full autonomy to propose according to given rules and procedures, must work together to outline an enterprise's strategies and codetermine its organization and management. Linking the quality of production to the quality of work, codetermination might be capable of realizing new forms of industrial democracy. This is clearly a very difficult aim to reach (and there are still few actual experiences we can recall).

Education and Workers' Professional Training

During the 1970s, "150 hours" urged trade unions to take an interest in the educational system since they had to organize courses for the completion of compulsory schooling in conformity with local and national

educational institutions. The "150 hours" are now used especially by young people who did not finish their studies or by women who want to investigate and reflect on their condition.

Today trade unions turned their attention to professional training. In spite of the commitment of the Emilia-Romagna regional government and of the employers' associations, available data show that many enterprises (especially small and medium-sized ones) are not increasing their standards of professional know-how. Furthermore, when these enterprises offer professional training they do not do it in accordance with trade unions' policies.

Emilian unions' strategy has oriented itself in two main directions. In one, there are favourable experiences such as that of Mec-track, a medium-sized firm of Bologna, where professional training has been managed by three "actors": employers, provincial government, and trade unions. In the other, there have been attempts to set up professional training courses using the existing laws. In 1991, for example, the trade unions and associations of artisans signed an agreement to facilitate professional training of small-sized enterprises' workers based on the peculiarities of these firms.

Health and Environmental Preservation

In the 1970s, the safeguarding of workers' health was entrusted to industrial physicians acting on behalf of unions. In Emilia-Romagna, this has led to the creation of a unitary union regional centre (Research Centre for Prevention), which is still a reference point for workers' health policies.

This attention towards risks inherent in working conditions (not only physical hazard risks but also psychological stress with the use of video-terminals and data processing equipment) has been extended to general environmental preservation as well. In 1990, the *Camera del lavoro* of Bologna created the Gaia Association to promote research and initiatives on pollution due to industrialization and use of chemical substances in agriculture.

Women's Condition in the Workplace and the New Organization of Work and Services

Adele Pesce (1990), in her report for the Regional Commission for Equal Opportunities between Men and Women, points out two different lines of action, which are both followed by women's groups in the trade unions.

The first line (which produces only *partial* initiatives) considers women's condition in the workplace. Union women's groups, for example, have reported enterprises where women have fewer career opportunities than men have, less access to high-level positions, fewer oppor-

tunities to attend professional training, etc. They also report working situations where both men and women are paid less because they do a job which is considered more "womanlike" than other jobs of equal complexity but traditionally judged more "manlike".

This disparagement of "womanlike" work (which expresses itself in different wages for jobs of equal complexity) may be found especially in the services sector, in professions such as teaching in primary school, nursing, social assisting, etc. This want of balance exists in industrial sectors as well. There are jobs in the textile sector (where most workers are women), for example, which are paid less than jobs of equal complexity in the engineering sector (where most workers are men).

There is, however, a second line of action which does not merely try to reach equality between men and women. On the basis of a theory which brings out sexual difference as a positive fact, it wants to criticize the whole organization of work considered as the result of exclusively male thought. Therefore, "work" is not only the work done in factory or office but housework as well, traditionally unpaid and done by women. Times and compensation for all work should be taken into account, in both production and reproduction areas. On this subject, there is a very interesting bill (promoted by the women of the Left Democrat Party (PDS) and supported by the women of the trade unions), which proposes a new organization of hours in workplaces and in urban areas.

A New Group of Workers: The Immigrant People

Trade unions must face the major presence of immigrant people from far countries who arrive in Emilia-Romagna with low levels of professional skills or else with professional skill which are not required by Emilian enterprises. At the same time, for Emilian small and medium-sized enterprises it is now very difficult to find skilled labour because of the drop in the 16–29 year-old population, which will continue for the next ten years.

The problem is how to increase the professional know-how of immigrant people in order to put them at in higher professional levels. Here-tofore, male immigrants (especially those from Morocco, Senegal and Tunisia) have only found very unskilled and dirty work; female immigrants usually work only as housemaids.

Emilian unions have stipulated an agreement (we can call it a "convention") with small entrepreneurs' associations, co-operatives, and local government in order to offer paid professional training together with part-time jobs to immigrant workers. This kind of agreement among trade unions, local government, and entrepreneurs' associations (started in Bologna in 1991) is typical of union strategy and of industrial relations in this region.

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WORKING CONDITIONS IN SMALL AND MEDIUM-SIZED ENTERPRISES IN JAPAN

THE CASE OF ŌSAKA

Tamai Kingo

ABSTRACT

In the 1980s working conditions in Japan changed drastically. In order to understand these new trends occurring in small and medium-sized enterprises (SMEs), we carried out research in Ōsaka, which is often called a typical SME district. We analyzed working conditions by industry type and size of workplace. Although there are some differences related to the type of industry, our survey shows that the smaller the workplace, the worse the working conditions are. From our research carried out in workplaces with up to 299 employees, we should like to draw attention to the fact that 60% of our sample were workplaces employing less than 30 persons. These very small workplaces probably have the worst working conditions among Japanese SMEs and collecting data on them is very difficult; therefore little research has so far been conducted. We believe, however, that even studies on general working conditions in enterprises of different sizes should include the smallest workplaces, because – as shown by our study – they often represent the worst examples. Our study focuses on current issues like the employment of older and female workers, labour force shortages, etc. In addition, we are able to predict future industrial relation problems. We hope that this study will help to develop a model for the improvement of working conditions in Japanese SMEs.

CONTENTS

1. Introduction
 2. General employment and working conditions
 3. Current issues in small and medium-sized enterprises
 4. Conclusion
- Bibliography

1. INTRODUCTION

In the 1980s new trends arose in Japanese industrial relations. Notable was, for instance, an increase in the number of workers in tertiary industry, a reduction in trade union membership and a shortage of work-

ers on the labour market. These facts are enough to warrant a reconsideration of the traditional view of Japanese industrial relations. Furthermore, the government passed new measures opening opportunities to female workers and the disabled, who had long been regarded as marginal to the labour force. Thus it can be claimed that the 1980s brought drastic changes with regard to employment and working conditions.

This paper focuses on working conditions in small and medium-sized enterprises in Ōsaka which is famous in Japan for its preponderance of small and medium-sized enterprises (SMEs). If we want to discuss working conditions in SMEs in detail, this city offers a good sample since a lot of information is available and new SME trends can be perceived. Although many opinions are expressed on Japanese industrial relations, they often only refer to big companies. However, in order to get a notion of the true picture of Japanese industrial relations in an international setting, we should study SMEs. Undoubtedly it is important to analyze relationships in the production structure between big business and SMEs, but we should also look at real working conditions in SMEs.

Table 1 shows the sample size of our research. The total number of workplaces¹ in Ōsaka Prefecture covered by this survey is 1,424. They have been selected at random from the members of the Ōsaka Federation of SMEs for the Improvement of Personnel Management (Ōsakafu Chūshō Kigyō Rōmu Kaizen Shūdan Rengōkai). The numbers classified by industry are as follows: construction 117, manufacturing 675, wholesale and retail 474 and services 158. The numbers of workplaces classified by number of workers² are: 1–9 persons 405, 10–29 persons 412, 30–99 persons 403 and 100–299 persons 204. Of these, there are 817 workplaces (about 60%) employing less than 30 persons. This fact is vital as research on the smallest workplaces, i.e. those employing less than 30 persons, has been very limited. For example, many statistical surveys of the Ministry of Labour such as the *Survey on Employment Management* (Koyō kanri chōsa) and the *Basic Survey on Wage Structure* (Chingin kōzō kihon chōsa) cover only workplace establishments of 30 and more persons. Even the *Monthly Labour Survey* (Maitsuki kinrō tōkei) is carried out only partly at

¹ In most cases the selected workplaces have been legally independent enterprises. However, in a few cases also branches of other enterprises have been included.

² Usually, in Japan there is no distinction in (employment) status between blue and white-collar workers. In this paper the terms 'workers' and 'employees' refer to both groups and are used synonymously.

smaller establishments. Our research has therefore the advantage of analyzing working conditions in such workplaces and indicating their current problems.

The main fields of our research include employment in general, employment for older workers, employment for the disabled, health and safety, wage and retirement allowances, working hours, welfare system, female part-time work and industrial relation problems. It is impossible to include all our results in this paper³; we will concentrate on employment and working conditions in general.

Table 1: Number of workplaces surveyed by size and industry

Size of workplace \ Industry	Con- struction	Manufacturing				Whole- sale & retail	Services	Total
		Textile	Machine & metal	Others	Total			
1-9 employees	37	20	35	55	110	207	51	405
10-29 employees	36	34	94	71	199	127	50	412
30-99 employees	30	20	113	98	231	103	39	403
100-299 employees	14	14	45	76	135	37	18	204
Total	117	88	287	300	675	474	158	1,424

Source: Survey of the author; Ōsakafu Chūshō Kigyō Rōmu Kaizen Shūdan Rengōkai (1990: 3).

2. GENERAL EMPLOYMENT AND WORKING CONDITIONS

The first issues to be tackled are average age and duration of employment. The average age of workers is 38.8 years. By industrial division, the average age is 42.2 years in the machine and metal industry and 35.9 years in the service industry. The average age in relation to the number of workers at the workplace is as follows: 1-9 persons 41.4 years, 10-29 persons 38.9 years, 30-99 persons 37.4 years and 100-299 persons 35.2 years. It is obvious that the average age in the smallest workplaces is higher than in others. The average duration of employment is 11.2 years, and more than 10 years in 56.7% of the workplaces.

³ The complete results of our survey have been published in Japanese by the author (Ōsakafu Chūshō Kigyō Rōmu Kaizen Shūdan Rengōkai 1990).

Table 2 gives an account of the workplaces which have rules of employment (*shugyō kisoku*)⁴ and a union. The percentage of workplaces using rules of employment is 77.6. In the smallest workplaces with less than 10 workers, however, the percentage is 38.0. This means that about 60% of the smallest workplaces have no rules of employment which can guarantee basic working conditions for workers. The percentage of workplaces with a union amounts to 11.8, so about 90% of the workplaces are without a union. In particular, only 2.6% of the workplaces in the construction industry and 1.3% in the wholesale and retail industry have union representation. The percentage in the smallest workplaces is also very low: 1–9 persons 1.5% and 10–29 persons 2.9%. The large difference between type of industry and number of workers is surprising. The lack of a union means that there is no formal bargaining between employers and workers. This is a serious problem in industrial relations in the smallest workplaces.

Table 2: Ratio of workplaces with or without rules of employment and labour unions by size and industry (in %)

Industry and size of workplace	Workplaces with rules of employment	Workplaces with labour unions				Total (No. of workplaces)
		Types of labour union			of which having concluded collective agreements	
		Enterprise union	Confederated union	Total		
Industry						
Construction	76.1	1.7	0.9	2.6	66.7	100.0 (117)
Manufacturing	84.9	19.3	1.9	21.2	17.1	100.0 (674)
Textile	68.2	22.7	0.0	22.7	95.0	100.0 (88)
Machine & metal	89.9	15.7	1.4	17.1	85.7	100.0 (286)
Others	85.0	21.7	3.0	24.7	73.0	100.0 (300)
Wholesale & retail	68.2	1.3	0.0	1.3	66.7	100.0 (472)
Services	75.9	8.2	1.3	9.5	80.0	100.0 (158)
Size of workplace						
1-9 employees	38.0	1.5	0.0	1.5	33.3	100.0 (405)
10-29 employees	89.0	2.2	0.7	2.9	83.3	100.0 (411)
30-99 employees	95.0	13.4	2.0	15.4	82.3	100.0 (402)
100-299 employees	100.0	40.4	2.5	42.9	80.5	100.0 (203)
Total	77.6	10.6	1.1	11.8	79.6	100.0 (1,421)

Source: Survey of the author; Ōsakafu Chūshō Kigyō Rōmu Kaizen Shūdan Rengōkai (1990: 14).

⁴ cf. Articles 89–93 Labour Standard Law.

Table 3 depicts the age and gender structure of workplaces. The age structure is as follows: 30–44 years 33.7%, 20–29 years 25.3% and 45–54 years 24%. For workers older than 55 we note one major characteristic: their percentage in workplaces employing between 1–9 persons is 17.2, whilst in larger SMEs (100–299 persons) it is 8.6. Thus, the percentage of workers over the age of 55 is indirectly proportionate to the size of the work force, which indicates the difficulty of the smallest workplaces to recruit young workers.

Table 3: Age groups of employees and gender structure by industry and size of workplace (in %)

Industry and size of workplace	Age group					Gender		Total (No. of employees)	No. of workplaces
	Below 20	20 to 29	30 to 44	45 to 54	55 and more	Male	Female		
<i>Industry</i>									
Construction	5.8	23.9	35.8	22.2	12.3	88.2	11.8	100.0 (5,160)	116
Manufacturing	5.6	22.2	33.7	26.5	12.0	68.4	31.6	100.0 (39,923)	673
Textile	7.8	18.6	26.8	30.6	16.2	57.0	43.0	100.0 (4,183)	87
Machine & metal	5.5	20.1	33.4	28.6	12.4	76.6	23.4	100.0 (15,298)	287
Others	5.5	24.6	35.4	24.0	10.1	64.5	35.5	100.0 (20,442)	299
Wholesale & retail	7.0	31.2	34.2	19.1	8.5	67.0	33.0	100.0 (13,324)	688
Services	8.2	32.6	30.2	19.7	9.3	63.4	36.6	100.0 (6,451)	156
<i>Size of workplace</i>									
1–9 employees	3.1	16.3	35.5	27.9	17.2	63.0	37.0	100.0 (2,006)	393
10–29 employees	5.5	20.1	31.9	27.7	14.7	71.3	28.7	100.0 (7,034)	533
30–99 employees	6.0	23.0	32.5	26.0	12.5	70.1	29.9	100.0 (21,016)	503
100–299 employees	6.7	28.2	34.7	21.8	8.6	68.5	31.5	100.0 (34,702)	204
Total	6.2	25.3	33.7	24.0	10.8	69.2	30.8	100.0 (64,758)	1,633

Source: Survey of the author; Ōsakafu Chūshō Kigyō Rōmu Kaizen Shūdan Rengōkai (1990: 20).

The gender structure is as follows: male workers make up 69.2% and female workers 30.8% of the work force. In our sample, the percentage of female workers may be a bit low in comparison with the norm. The high percentage in the textile industry is particularly striking.

Next we turn our attention to other important problems in SMEs: wages, working hours, holidays, the retirement age, etc.

The annual spring wage negotiations called *shuntō* are characteristic of Japanese labour-management relations. In spring 1989 the percentage of workplaces conducting negotiations was 77.6. There were, however, some

marked differences in the findings. For instance, percentages were high (85.9%) in the manufacturing industry, but low (57.0%) in workplaces with less than 10 employees. Here we have an example of the worst excesses of employment in the smallest workplaces. Moreover, we can see the previous average level, which amounts to 259,171 Yen. The average wage increase resulting from the spring wage negotiations amounted to 10,811 Yen or 4.2%.

Working hours are being dealt with in Table 4. The average scheduled working week consists of 45:05 hrs. There are, however, differences in working hours by workplace size: 1–9 persons 47:07 hrs, 10–29 persons 45:49 hrs, 30–99 persons 44:34 hrs, and 100–299 persons 41:21. According to Table 4, 31.2% of the workplaces had a 48-hour working week, whilst 13.4% worked less than 40 hours per week. In this case the results differ by workplace size. Furthermore, the percentage of workplaces with a working week of more than 48 hours is 5.8, even though there are wide differences between top and bottom. In general, we can note a long working week in SMEs, and the smaller the workplace, the longer the working week.

Table 4: Scheduled weekly working hours by industry and size of workplace (in %)

Scheduled weekly working hours (h)	Less than 40	40:00	40:01 to 41:59	42:00	42:01 to 44:59	45:00	45:01 to 47:59	48:00	More than 48:00	Total (No. of workplaces)	Average working hours
Industry											
Construction	6.7	2.9	4.8	3.8	10.5	5.7	11.4	49.4	4.8	100.0 (105)	46:14
Manufacturing	8.1	4.7	7.0	4.4	24.2	5.3	15.3	28.7	2.3	100.0 (639)	44:50
Textile	6.0	2.5	1.3	9.7	17.1	1.2	14.7	42.6	4.9	100.0 (82)	45:30
Machine & metal	7.9	3.9	6.4	3.5	26.1	6.1	14.2	30.6	1.3	100.0 (280)	45:25
Others	9.0	6.1	9.4	3.6	24.2	5.8	16.6	22.7	2.6	100.0 (277)	44:06
Wholesale & retail	10.1	3.5	5.5	7.6	14.4	8.8	10.6	28.2	11.3	100.0 (397)	45:18
Services	11.8	6.3	6.9	4.2	6.9	6.9	11.8	38.3	6.9	100.0 (144)	44:49
Size of workplace											
1–9 employees	5.6	3.4	1.2	6.2	9.0	5.6	10.5	46.0	12.5	100.0 (324)	47:07
10–29 employees	4.8	2.4	5.6	5.3	14.9	8.8	11.7	40.7	5.8	100.0 (377)	45:49
30–99 employees	9.0	3.9	9.3	5.4	24.8	6.4	16.5	22.1	2.6	100.0 (389)	44:34
100–299 employees	23.1	10.7	10.8	3.6	25.7	4.6	13.8	6.7	1.0	100.0 (195)	41:21
Total	9.0	4.4	6.4	5.3	18.1	6.6	13.2	31.2	5.8	100.0 (1,285)	45:05

Source: Survey of the author; Ōsakafu Chūshō Kigyō Rōmu Kaizen Shūdan Rengōkai (1990: 72).

According to Table 5 the average number of annual working days are 279. The percentage of workplaces with 271–280 and 281–290 annual working days is 24.5 and 24.9, respectively. Surprisingly, 4.3% of the workplaces have 301 annual working days. In particular, the smallest workplaces in the construction, wholesale and retail industries have few holidays. On the other hand, 5.2% of the workplaces have less than 250 annual working days. Of course we should bear in mind when we study these figures that there is a serious shortage of labour in SMEs in Ōsaka. However, to work more than 300 days is very taxing. We will later return to this labour shortage problem when studying the employment patterns of older workers.

Table 5: Annual working days by size of workplace and industry (in %)

Working days (days)	Less than 250	251 to 260	261 to 270	271 to 280	281 to 290	291 to 300	301 to 310	More than 310	Total (No. of workplaces)	Average working days
Industry										
Construction	6.2	3.1	12.5	27.1	21.9	21.9	4.2	3.1	100.0 (96)	282.0
Manufacturing	4.3	8.0	24.1	24.3	25.5	11.1	0.8	1.9	100.0 (585)	276.3
Textile	4.7	6.3	25.1	15.7	20.3	21.8	1.5	4.6	100.0 (64)	279.2
Machine & metal	4.2	3.8	24.1	26.1	29.1	10.3	0.5	1.9	100.0 (261)	280.0
Others	4.2	12.7	23.8	24.6	23.1	9.2	1.2	1.2	100.0 (260)	274.8
Wholesale & retail	5.5	3.7	20.4	25.6	23.5	17.1	1.5	2.7	100.0 (328)	279.0
Services	8.0	2.4	16.8	20.8	28.8	14.4	4.0	4.8	100.0 (125)	285.7
Size of workplace										
1–9 employees	5.1	2.8	11.4	18.5	33.5	22.4	2.4	3.9	100.0 (254)	288.0
10–29 employees	3.4	2.5	17.1	23.1	29.3	18.7	2.8	3.1	100.0 (321)	281.0
30–99 employees	4.9	6.8	23.2	32.0	21.9	8.2	1.1	1.9	100.0 (366)	275.0
100–299 employees	8.8	13.0	37.4	20.7	12.4	6.7	0.0	1.0	100.0 (193)	270.0
Total	5.2	5.7	21.3	24.5	24.9	14.1	1.7	2.6	100.0 (1,134)	279.0

Source: Survey of the author; Ōsakafu Chūshō Kigyō Rōmu Kaizen Shūdan Ren-gōkai (1990: 75).

Table 6 deals with the number of days-off per week. The percentage of workplaces which have a 5-day working week is 57.8. However, there are differences according to the type of industry and workplace size. For instance, the percentage in the construction industry is 44.5, whilst in workplaces which employ 1–9 persons it is 28.8, with 10–29 persons it is 54.4%, with 30–99 persons 74.4%, and with 100–299 persons it is 86.5%. Thus, although the percentage with 2 days-off per week is high, we ought to bear in mind the large differences according to the type of industry and workplace size.

Table 6: Weekly holiday systems by industry and size of workplace (in %)

Systems of weekly holidays Industry and size of workplace	6-day working week system	5.5-day working week system	5-day working week system	Other Systems	No System practiced	Total (No. of workplaces)	Workplace with a flexible holiday system
<i>Industry</i>							
Construction	45.5	2.7	44.5	2.7	4.6	100.0 (110)	57.3
Manufacturing	28.0	1.5	61.0	6.6	2.9	100.0 (667)	51.3
Textile	38.6	0.0	53.4	4.6	3.4	100.0 (81)	41.0
Machine & metal	28.7	1.8	60.2	6.8	2.5	100.0 (279)	51.6
Others	24.4	1.7	63.9	7.0	3.0	100.0 (299)	54.2
Wholesale & retail	36.2	2.2	57.4	2.2	2.0	100.0 (447)	47.7
Services	37.9	2.6	54.9	3.3	1.3	100.0 (153)	47.7
<i>Size of workplace</i>							
1-9 employees	63.5	1.6	28.8	1.9	4.2	100.0 (378)	44.7
10-29 employees	35.4	2.5	54.4	3.7	4.0	100.0 (401)	54.4
30-99 employees	16.3	2.0	74.4	6.5	0.8	100.0 (399)	47.9
100-299 employees	5.0	1.5	86.5	7.0	0.0	100.0 (199)	56.8
Total	33.2	2.0	57.8	4.5	2.5	100.0 (1,377)	50.2

Source: Survey of the author; Ōsakafu Chūshō Kigyō Rōmu Kaizen Shūdan Ren-gōkai (1990: 60).

However, how often do workers actually take full weekends per month? According to our research, a 5-day working week can be taken four or three times per month or less often. Yet, only 6.7% of the workplaces grant their employees 2 days-off every week. The percentage of a 5-day week three times per month is similarly low (5.5%). Comparatively few companies offer 5-day weeks three or four times per month. However, the percentages with regard to 2-day weekends once or twice per month are very high.

As regards paid annual leave, on average a worker in his first year of employment is entitled to 4.4 days. In the second year of employment the figures are as follows: less than 6 days 18.5%, 6 days 49.3%, 7-14 days 30.7%, and more than 15 days 1.5%. In general, workers in their third year of employment are entitled to an increase in paid annual leave by 1 day every year. However, some workers choose not to use up their paid annual leave due to busy working schedules, labour shortage, etc. This is an aspect of the much-criticized overwork patterns of the Japanese work force. Recently the government proposed that workers should take as much of their paid annual leave as possible.

It is obvious that these results are in contrast to widely held views on Japanese industrial relations which often over-concentrate on large enterprises. In this sense, in order to get an impression of real working conditions, we should pay greater attention to SMEs, mainly the smallest workplaces, rather than big business.

3. CURRENT ISSUES IN SMALL AND MEDIUM-SIZED ENTERPRISES

This section covers some current issues in SMEs: retirement age, female part-time work and employment for the disabled. It is evident that these problems are gaining importance.

Table 7 focuses on retirement age (of workplaces without differentiation according to gender). At 60% of the workplaces the retirement age is 60. However, 22.0% of the workplaces have a retirement age of 55. This pattern is characteristic of SMEs. Therefore it is natural that some SMEs should also be raising the retirement age.

Table 7: Retirement age at workplaces practicing retirement age regardless of gender by industry and size of workplace (in %)

Retirement age (years) Industry and size of workplace	Less than 55	55	56	57	58	59	60	over 60	Total (No. of workplaces)
<i>Industry</i>									
Construction	0.0	8.9	0.0	14.3	3.6	0.0	69.6	3.6	100.0 (56)
Manufacturing	0.0	19.6	1.5	6.0	6.5	0.6	61.0	4.8	100.0 (464)
Textile	0.0	23.3	2.3	11.6	2.3	0.0	60.5	0.0	100.0 (43)
Machine & metal	0.0	15.0	1.4	7.7	6.8	1.0	61.8	6.3	100.0 (207)
Others	0.0	23.2	1.4	3.3	7.0	0.5	60.4	4.2	100.0 (215)
Wholesale & retail	0.4	30.5	0.4	5.5	5.9	0.0	54.8	2.5	100.0 (236)
Services	0.0	20.5	1.2	1.2	10.8	2.4	62.7	1.2	100.0 (83)
<i>Size of workplace</i>									
1-9 employees	0.0	27.9	1.5	4.4	7.4	0.0	55.9	2.9	100.0 (68)
10-29 employees	0.0	20.6	0.4	6.3	6.7	0.0	58.1	7.9	100.0 (253)
30-99 employees	0.3	22.0	0.9	5.8	7.3	0.9	61.0	1.8	100.0 (327)
100-299 employees	0.0	22.0	2.1	6.3	4.7	1.0	62.3	1.6	100.0 (191)
Total	0.1	22.0	1.1	5.9	6.6	0.6	60.0	3.7	100.0 (839)

Source: Survey of the author; Ōsakafu Chūshō Kigyō Rōmu Kaizen Shūdan Rengōkai (1990: 26).

Table 8: Working conditions of workers employed beyond retirement age in comparison to those of pre-retirement age by industry and size of workplace (in %)

working conditions Industry and size of workplace	Status of employment			Job content		Wages				Total (No. of workplace)	No. of employees employed beyond retirement age
	no change in status	temporary and/or parttime status	no answer	no change in job content	change in job content	no answer	continued increase by seniority	decrease	constant	no answer	
<i>Industry</i>											
Construction	38.5	51.9	9.6	80.8	9.6	9.6	9.6	46.2	36.5	7.7	151
Manufacturing	26.6	59.9	13.5	78.6	7.9	13.5	14.3	51.8	21.2	12.7	1,247
Textile	28.3	67.4	4.3	87.0	8.7	4.3	17.4	50.0	26.1	6.5	170
Machine & metal	31.5	59.2	9.3	83.1	7.5	9.4	16.9	50.2	24.9	8.0	546
Others	21.6	59.0	19.4	72.5	8.1	19.4	11.3	53.5	16.7	18.5	531
Wholesale & retail	22.6	66.8	10.6	76.9	12.1	11.0	9.5	44.2	34.7	11.6	309
Services	24.1	46.6	29.3	50.0	10.3	39.7	15.6	33.6	19.8	31.0	224
<i>Size of workplace</i>											
1-9 employees	31.6	45.6	22.8	62.0	7.6	30.4	19.0	30.4	21.5	29.1	56
10-29 employees	33.3	51.8	14.9	71.9	11.4	16.7	14.0	45.2	26.3	14.5	385
30-99 employees	26.7	57.7	15.6	75.5	8.0	16.5	13.9	46.3	25.6	14.2	737
100-299 employees	13.8	76.7	9.5	80.0	10.0	10.0	7.9	58.3	24.3	9.5	753
Total	26.1	59.2	14.7	74.3	9.3	16.4	13.1	47.2	25.1	14.6	1,931

Source: Survey of the author; Ōsakafu Chūshō Kigyō Rōmu Kaizen Shūdan Ren-gōkai (1990: 37).

Furthermore, it is necessary to examine post-retirement age employment, which is very important to the Japanese employment system. According to our research, 58.7% of the workplaces employ workers after retirement. Of these workplaces 62.6% have a yearly contract arrangement system with post-retirement workers. Table 8 shows the working conditions of those workers. It covers their status, job and wage. The percentage of workplaces which classify them as part-time and temporary employees is 59.2, whereas 74.3% choose not to change their job. Wages are often reduced, as shown in Table 8. Thus, it is obvious that a characteristic of post-retirement age employment systems is a general deterioration in working conditions. Nevertheless, some workers in SMEs depend on post-retirement age employment as they do not get any pensions or retirement allowances.

On the other hand, as we have already seen, there is still a severe labour shortage in Japan. Hence, demand for older workers is on the increase. Other reasons for re-employment of pensioners are their work experience, maturity, lower wages and social trends. For 50% of the workplaces working experience and labour shortages were reasons for employing older workers.

According to Table 9 the percentage of workplaces which employ female part-time workers is 50.7. However, there are differences depending on the type of industry. The percentage of female part-time workers in the construction industry is very low (15.4%) due to the great amount of heavy manual work, but very high in the manufacturing industry, where female part-time workers have played a very important role. On the other hand, the percentage in workplaces with 1–9 persons is very low (26.2%) as family members are sometimes employed, and very high (78.9%) in workplaces which employ 100–299 persons.

The average age of female part-time workers is 43.0, which means that they re-enter the part-time labour market after their children have grown up. Average employment length is 3.8 years and average scheduled daily working hours are 6:10, leaving female part-time workers time for their domestic chores. The average hourly wage is 650 Yen, and the average yearly bonus amounts to 76,067 Yen. 39.5% of workplaces grant paid annual leave. There are, however, large differences between workplaces of different sizes when it comes to paid annual leave.

Table 9 also gives an account of future employment plans in regard to part-time work. 58.8% of the workplaces are without any expected change, whilst 36.1% are planning to increase part-time and decrease full-time work, which will lead to a drastic increase in the demand for part-time workers.

Table 9: Employment and working conditions of female part-timers by industry and size of workplace (in %)

Employment and working conditions	Workplaces employing female part-timers		Average age of part-timers (years)	Average length of employment (years)	Average length of daily scheduled working hours (No. of work-places)	Work-places employing part-timers which let them work overtime	Hourly wages in Yen (No. of work-places)	Sum of annual bonus payments in Yen (No. of work-places)	Workplaces employing part-timers which have		Future employment plan					
	Average No. of part-timers	no plan							increase of part-timers and decrease of regular employees	in-crease of part-timers	decrease of part-timers	Total				
Industry and size of workplace																
Industry	Construction	15.4 (18)	2.0	42.0 (17)	1.7 (17)	5:28 (18)	22.2	722 (18)	56,200 (10)	50.0	27.8	76.0	20.0	4.0	0.0	100.0 (25)
	Manufacturing	70.0 (452)	10.6	43.7 (414)	4.1 (410)	6:11 (417)	21.7	642 (404)	80,814 (314)	45.8	41.6	55.4	39.6	3.9	1.1	100.0 (454)
	Textile	73.0 (64)	7.6	43.2 (63)	4.0 (63)	6:23 (60)	13.0	607 (60)	67,173 (44)	31.0	30.0	65.7	31.3	3.0	0.0	100.0 (67)
	Machine & metal	68.6 (197)	6.5	41.2 (162)	3.6 (158)	6:18 (165)	23.1	638 (161)	82,079 (129)	42.1	32.5	60.8	34.3	3.9	1.0	100.0 (181)
	Others	92.7 (191)	16.0	43.0 (189)	3.9 (189)	6:10 (192)	26.7	646 (183)	88,742 (141)	54.5	55.0	47.6	46.6	4.4	1.4	100.0 (206)
	Wholesale & retail	41.9 (198)	4.6	42.1 (191)	3.6 (186)	6:20 (183)	22.2	651 (183)	70,115 (114)	23.7	22.2	65.3	31.5	2.3	1.9	100.0 (216)
Size of workplace	Services	33.5 (53)	3.7	39.6 (60)	3.0 (59)	5:45 (59)	30.2	682 (60)	60,341 (39)	41.5	41.5	56.6	34.8	7.2	1.4	100.0 (69)
	1-9 employees	26.2 (106)	2.0	44.0 (102)	4.6 (98)	6:08 (95)	20.0	650 (99)	89,557 (61)	13.2	12.3	65.9	31.7	2.4	0.0	100.0 (126)
	10-29 employees	55.7 (229)	2.9	43.0 (200)	3.5 (196)	6:10 (197)	19.7	657 (193)	62,873 (128)	21.0	16.6	60.3	33.3	5.0	1.4	100.0 (219)
	30-99 employees	58.5 (235)	6.7	42.0 (230)	3.7 (228)	6:13 (230)	25.7	640 (224)	85,172 (165)	46.0	41.3	56.4	38.9	3.9	0.8	100.0 (257)
	100-299 employees	78.9 (161)	21.7	42.0 (150)	3.6 (150)	6:15 (155)	29.0	649 (149)	74,989 (123)	71.4	68.9	55.6	39.4	3.0	3.0	100.0 (160)
Total		50.7 (721)	8.2	43.0 (682)	3.8 (672)	6:10 (677)	23.9	650 (665)	76,067 (477)	39.5	35.9	58.8	36.1	3.8	1.3	100.0 (762)

Source: Survey of the author; Ōsakafu Chūshō Kigyō Rōmu Kaizen Shūdan Rengōkai (1990: 88).

Despite of the many important publications about female part-time workers in Japan, we believe the results of our research to be interesting as they illustrate demands for part-time workers which are due to shortages in the labour market or other factors. The number of female part-time workers is increasing particularly rapidly. Although their working conditions have been gradually improving, social insurance benefits and retirement allowances are still inadequate. We therefore think that most SMEs should improve welfare provisions along with working conditions. In 1989, the central government established new guidelines for part-time work in order to overcome these problems.

As regards the job situation of the disabled, it is to be noted that in 1987 a new employment quota of 1.6% was set for disabled workers, meaning that enterprises with a staff of 63 persons had to employ above that rate. The real conditions of employment are, however, slightly lower due to the very negative attitude of some large enterprises. It can be said that employment for the disabled is sometimes at a higher level in SMEs.

Table 10: Employment and working conditions of disabled persons by industry and size of workplace (in %)

Employment and working conditions Industry and size of workplace	Work-places which employed disabled workers in the past 3 years	Type of				No. of work-places employing disabled workers	Ratio of disabled employees to all employees	Ratio of work-places employing disabled workers to all work-places	
		employment status		Job					Total (No. of employed disabled workers)
		full-time	part-time	white collar	blue collar				
Industry									
Construction	2.6	100.0	0.0	47.8	52.2	100.0 (23)	13	0.4	11.1
Manufacturing	8.5	96.9	3.1	16.3	83.7	100.0 (680)	282	1.7	41.8
Textile	11.4	90.2	9.8	13.4	86.0	100.0 (82)	36	2.0	40.9
Machine & metal	5.9	97.8	2.2	12.8	87.2	100.0 (274)	121	1.8	42.2
Others	10.0	97.8	2.2	20.1	79.9	100.0 (324)	125	1.6	41.7
Wholesale & retail	2.1	93.8	6.2	43.8	56.2	100.0 (80)	52	0.6	11.0
Services	5.1	95.9	4.1	22.4	77.6	100.0 (49)	38	0.8	24.1
Size of workplace									
1-9 employees	1.3	87.5	12.5	43.8	56.2	100.0 (16)	15	0.8	3.8
10-29 employees	3.9	92.3	7.7	8.8	91.2	100.0 (91)	73	1.3	17.9
30-99 employees	7.0	96.4	3.6	17.2	82.8	100.0 (274)	146	1.3	36.7
100-299 employees	14.4	97.6	2.4	23.4	76.6	100.0 (453)	151	1.3	74.8
Total	5.6	96.4	3.6	20.1	79.9	100.0 (834)	385	1.3	27.5

Source: Survey of the author; Ōsakafu Chūshō Kigyō Rōmu Kaizen Shūdan Rengōkai (1990: 42).

Table 10 deals with employment of the disabled. 5.6% of the workplaces employed disabled workers in the last three years. However, the percentage ranges from 2.6% to 11.4% according to the type of industry and from 1.3% to 14.4% by size of workplace. 96.4% of the workplaces employ disabled workers full-time, whilst 3.6% employ them part-time. 20.1% of the workplaces employ the disabled as white-collar workers and 79.9% as blue-collar workers. The percentage of disabled among the total of workers is 1.3, and the percentage of workplaces employing the disabled is 27.5.

As we saw, the statutory employment rate is 1.6%. However, the actual rate in the present study ranges from 0.8% to 1.3%, depending on the size of the workplace. The rate is indeed rather low, but we should bear in mind that the regulation covers only enterprises employing more than 63 persons. This being the case, the rate of 1.3% is not necessarily low, rather, we may well conclude that SMEs make great efforts to employ the disabled.

Employment attitudes towards the disabled have changed and gradually improved in Japan. For instance, some factories in which the disabled are employed, have been founded as joint ventures by private enterprises and local governments. Furthermore, some enterprises have designated special staff to improve working conditions for disabled workers. Still, employment of the disabled will be an important issue in the 1990s.

In order to understand the working conditions in SMEs completely, we must refer to their employee welfare system since it plays an important part in Japanese industrial relations. We looked at three types of welfare measures: housing, culture and sporting facilities, and loans.

Of these, housing is very important for workers because it can be quite difficult to find appropriate and inexpensive housing in Japan. Thus, some enterprises provide company housing or bachelor accommodation. In our sample, although 21.0% of the workplaces offer company housing and 25.1% offer bachelor accommodation, it depends on the size of the workplace whether such systems are available. In order for SMEs to attract young workers, good company accommodation is essential.

As an indicator for culture and sporting facilities, we should investigate the percentage of company trips, which are a kind of company holiday. A remarkable 82.6% of workplaces sponsor such trips. On company excursions, taking between one and two days, workers can enjoy relaxed communication and evening parties. Thus, these excursions are very important opportunities to intensify communication among workers. Even in workplaces which employ 1-9 persons, the percentage is very high (64.4%).

The loan system allows workers to borrow money from their workplaces. There are three kinds of loans: housing, personal, and those for marriage, birth, death, etc. The percentage of marriage-type loan systems is very high (78.1%). However, the percentage ranges from 57.0% to 96.1%,

depending on the size of the workplace. In general, workplaces with many workers can provide more comprehensive welfare systems for their staff.

Finally we looked into industrial relation problems to be solved in the future. The issues most mentioned in our survey were career development (59.8%), wage (37.5%) and working hours (36.9%). Thus we can see strong concerns over career development in SMEs. Recently technological innovation has progressed rapidly, as has the introduction of office automation systems. In SMEs it is very important whether career development systems have been established or not because they have a strong impact on new production strategies. It is no exaggeration to say that whether SMEs can grow or not decisively depends on career development measures.

4. CONCLUSION

We have discussed working conditions in SMEs on the basis of our research carried out in Ōsaka Prefecture. We have looked in particular at workers' age, gender structure, employment length, wages, working hours, etc. Moreover, we have considered current problems such as employment for older workers and female part-timers or disabled workers. Through our research we believe to be able to describe some characteristics of working conditions, even in the smallest workplaces which are not covered in official reports such as the SME White Papers (cf. Chūshō Kigyōchō 1991).

In our study we became aware of serious problems at a local level. For instance, most employment positions in SMEs are occupied by middle-aged workers. As mentioned above, there are serious supply shortages on the Japanese labour market. It is particularly difficult for SMEs to hire young workers, because they tend to prefer big companies in order to have better working and living conditions. Thus, the average age structure in SMEs has been shifting. Some SMEs have, however, begun to employ young foreign workers instead of young Japanese workers.

On the other hand, as far as wages and working hours are concerned, SMEs reflect the good economic conditions in Japan. For instance, as the result of the spring negotiations most workers have acquired normal wage increases. Long working weeks have, however, not been abolished, despite demands even in SMEs. But, as we have seen, it is very difficult to introduce a 5-day working week. As many SMEs have strong connections with large enterprises as subcontractors, they are often controlled by the client companies in setting working hours and holidays. Although it is desirable that SMEs should manage their own production schedule, because of their dependence they cannot ignore demands of larger firms.

It goes without saying that there are large differences in respect to working days based on enterprise size.

Our research has also examined current problems. For instance, we have looked into the real conditions regarding retirement age. The national government is promoting an employment policy for older workers, shifting the retirement age from 60 to 65 years. Our research shows, however, that one-third of SMEs in Ōsaka still set their retirement age below 60 years. These workplaces will be encouraged to shift their retirement age policy toward 60 years as soon as possible. This is one example of the difference between the employment policies of the government and working conditions in SMEs.

We can also see such differences in the case of female part-time workers or prospects of employment for the disabled. In particular, there has been little detailed research on employment for the disabled in Japan. Another lack concerns employment of foreign workers; there has been little research and few positive policy ideas on this subject. Some SMEs are already employing foreign workers illegally, as a solution to the severe labour shortage. In this case, our research can present some data useful to national and prefectural government offices.

For example, in 1989, the Ōsaka prefectural office established a new labour administration network to deal with these new issues. This network divided Ōsaka Prefecture into four areas and established four new labour administration offices, every one of which can tackle labour problems in this area, contacting other offices and sharing necessary information. This is one example in which local government has executed a regional labour policy.

Finally it is to be emphasized that our research includes many workplaces which employ less than 30 persons. As it is very difficult to get data on such workplaces, our research is important and useful for grasping the real working conditions in the smallest enterprises. If we try to analyze working conditions in SMEs, it is necessary to include data on workplaces which employ fewer than 30 persons.

The smallest enterprises in the broad SME classification represent the worst working conditions in the Japanese economy. This is evident in the answers to the questions asked in our research. Thus, we hope that the detailed data on working conditions in SMEs presented in our study will form a basis for enterprises, unions and central and local government to set and develop better labour standards.⁵

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WOMEN AND JAPANESE SOCIETY TODAY

POLITICAL MEASURES WITH RESPECT TO MARGINALIZED LABOUR FORCE

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ABSTRACT

This paper tries to characterize the condition of women as a marginalized labour force in contemporary Japanese society, and to suggest some alternative strategies with which to formulate labour standards. Despite some elaborate studies of women's labour, women in general, along with workers in small and medium-sized companies and non-Japanese workers, have for the most part been excluded from the conceptualization of Japanese industrial relations and management. Freed from such a bias, it can clearly be seen that the peculiar state of gender division of labour, not only in paid work but also in unpaid housework, in which women are put in an ever-disadvantaged position, is the very basis of the international competitiveness of Japanese management. The long and underpaid working hours of women constitute a much more serious problem than the notorious *karōshi* (death from overwork) of male "corporate warriors".

CONTENTS

1. Introduction
2. Internationalization and the marginal labour force
3. Women's labour in contemporary Japan
 - 3.1. Paid work
 - 3.2. Unpaid work
4. Alternative strategies towards the formation of labour standards

1. INTRODUCTION

In this paper, I hope to, first, characterize and analyze the condition of women as a marginalized labour force in contemporary Japanese society in the context of internationalization, and second, suggest some alternative political measures or strategies with which to formulate labour standards, so that the hardships faced by women in their capacity as a marginalized labour force and the problems connected with their working conditions might be overcome. Prior to characterizing the

condition of women in the labour force, I would like to provide some theoretical background on women's labour in the context of internationalization.

2. INTERNATIONALIZATION AND THE MARGINAL LABOUR FORCE

With respect to the problem of internationalization and marginalization, the recent works of Morita Kirirō, an international economist, are highly relevant. His basic premise is that economists in general, and the study of global economy in postwar Japan in particular, have been indifferent to the problem of international labour migration (Morita 1987). Reflecting the influence of feminists such as Veronica Beechy and Claudia von Werlhof, he discusses not only the migration problem but also the multi-layered hierarchical structure of global labour force appropriation, women's labour in "advanced" capitalist countries and migration within the "Third World" (Morita and Kimae 1988: 2, 8). He uses the expanded concept of an "Industrial Reserve Army" to clarify the theoretical position of women and foreign workers, who are commonly referred to as the "Marginal Labour Force".

According to Morita, the concept of an Industrial Reserve Army needs to be expanded in three ways. First, we must go beyond the dimension of the abstract capitalist mode of production to view the Industrial Reserve Army at the level of the "articulation" of the capitalist mode of production and social institutions outside this mode (for example, family or small farming in the Third World). A second, related point is to make the "capitalist world economy" the unit of analysis, thereby freeing analysis from the framework of single-country capitalism. Third, labour power must be understood in concrete terms, not as abstract wage labour defined as "freed in a dual sense". Women and foreigners, who are unable to market their labour freely because of politico-legal constraints (for example, migration control) or socio-institutional constraints (sexist ideology), constitute a category of "unfree wage labour", and as such are the main component of the Industrial Reserve Army (Morita and Kimae 1988; Morita 1990).

It is through Morita's concept of internationalization that I would like to discuss the condition of working women in Japan, although I have some reservations about his concept of "unfree wage labour", which I will elaborate on later.

Looking at research in the areas of social policy and labour problems, I cannot help feeling that women and non-Japanese workers in Japan have

been ghetto-ized as “special” or marginal. Although there have been serious and elaborate studies on women’s labour as such (Takenaka 1989), these studies have not been integrated into the theoretical framework of Japanese industrial relations or Japanese management.¹ In 1984, Sumiya Mikio, then President of the Japanese Institute of Labour, proposed that research on “industrial relations be extended to small and medium-sized enterprises and women” (Sumiya 1984). Even today, however, studies of Japanese industrial relations and Japanese management focus almost entirely on regular male employees of Japanese nationality who work in large companies, and exclude women, even those of Japanese nationality.

What does this focus of research mean? As a partial explanation, Morita points out that Japan was the only “advanced” capitalist country that did not introduce foreign labour in large quantities during the period of rapid economic growth (Morita 1987: 21). Therefore, the exclusion of foreigners in the study of Japanese management might appear justified. However, in light of Totsuka Hideo’s pioneering work on foreign workers, in which he points out that over two million Koreans resided in Japan at the time of its defeat in 1945, this exclusion is not justified (Totsuka 1974: 123). This failure to examine Japan’s rule of colonized Korea and its reaction to Japan constitutes a serious flaw in social science research on postwar Japan (Wada 1980).

In the case of women, there is even less “rational” explanation for their exclusion. Nevertheless, the current model of Japanese management, which is based on the exclusion of women as well as workers in small and/or medium-sized enterprises, is praised as having elements of “participation and egalitarianism”, and as “respecting the worker”. There is even considerable talk about its international transferability (Totsuka 1990). This model is a clear articulation of andro-centrism, in the form of methodological imperialism on the micro level and ethno-centrism on the macro level. In response to the proposed internationalization of this model, I would like to emphasize that we need to look more closely at the situation in Japan first. Inherent in the international competitiveness of “Japanese management”, which has been touted since the mid-1970s, is an extreme bias that ignores the peculiar status and conditions of women’s labour.

¹ I myself had been unconscious of the absence/invisibility of women in studies on Japanese industrial relations until it was brought to my attention by a remarkable, yet unpublished paper by Marga Clegg.

3. WOMEN'S LABOUR IN CONTEMPORARY JAPAN

I would like to summarize some characteristics of Japanese women's labour and the part played by women in capital accumulation, paying particular attention to how Japan compares with "advanced" countries in the West².

3.1. *Paid Work*

First, in terms of labour participation, it is noteworthy that only 70% of women with occupations are employees (11% are self-employed, and the remaining 18% are family workers). The figure for women in "advanced" countries is over 90%, higher than that of men, while that of Japanese men is 80%, similar to the figure for other countries. Labour force participation by women according to age group follows a bimodal, "M"-shaped curve only in Japan, and to a lesser degree in the U.K., while in other industrialized countries the curves are either trimodal (the U.S. and Sweden), or unimodal with a peak in the early twenties (West Germany).

There is also a large wage gap between men and women in Japan. This gap has been widening in Japan since the mid-1970s, with women achieving 56.2% of men's earnings in 1978 but only 49.6% of men's earnings in 1990 (calculated on the basis of average monthly earnings of both "full-time" and "part-time" employees in enterprises employing over 30 persons). Other countries, however, have generally experienced a slight reduction; certainly no remarkable widening has occurred. Koike Kazuo reports that the gap in Japan was already larger than in some European countries in the early 1970s (Koike 1991: 142–143), which makes the widening in the last 15 years even more alarming. Even if we only take the statistics for full-timers, the gap has remained during this period, with women earning 57.1% of men's wages in 1990 (calculated on the basis of average monthly earnings in enterprises employing over 10 persons), though we should be careful about the differences in official definitions and the realities of "part-time" work in various countries.

It is commonly acknowledged that the most important cause of this wage gap is the division of labour between men and women, or gender segregation (Shinotsuka 1982: Chapter 8; Koyō Shokugyō Sōgō Kenkyū-sho 1987: 149f.; Walby 1988: 1). A critical characteristic of segregation in Japan is suggested by the fact that the so-called WE segregation index calculated by the OECD is far lower in Japan than in "advanced" countries, as shown in Tables 1 and 2.

² Statistics on women's labour are from Rōdōshō Fujinkyoku (various years), unless otherwise noted.

Table 1: WE segregation index¹ based on occupational data (in %)

	1970	1977	1978	1979	1980	1981	1982	1983
Canada	53.4 ²		49.9	49.5	46.9	46.7	44.6	40.9
Germany	41.8		44.0		44.1		44.2	
Japan	30.6	28.9	28.4	28.6	28.6	27.5	27.5	
United States	47.5	51.1	50.1	49.4	48.4	47.4	46.5	

¹ calculated at the ISCO one-digit level (international standard classification of occupations, see Table 3).

According to the OECD (1985: 67-68), the formula of the WE index is:

$$\sum_{i=1}^k \left(\frac{N_{fi}/N_i}{N_f/N} - 1 \right) \times \frac{N_i}{N} \times 100\% \text{ and } CFR_i = \frac{N_{fi}/N_i}{N_f/N}$$

$$\text{It may also be written as } \sum_{i=1}^k \left(\frac{N_{fi}}{N_f} - \frac{N_i}{N} \right) \times 100\%$$

and thus be seen to be the sum of the difference between the female share of each employment category and the total share of each category added without respect for sign; of which

N_{fi} is the number of women in employment category i ,

N_i is the number of persons in employment category i ,

N_f is the number of women in total employment,

N is the total number of persons in employment,

k is the number of employment categories.

² for 1971.

Source: OECD (1985: Table II.1).

Table 2: Industrial sector data, WE index¹ (in %)

	1970	1976	1977	1978	1979	1980	1981
Canada	40.3 ²	39.0	39.0	38.9	37.9	37.0	36.4
Germany	35.2	35.6	35.3	35.0	35.2	35.0	36.3
Japan	22.3	23.5	23.4	23.1	23.2	22.7	22.0
United States	39.0	40.8	40.3	40.4	40.6	40.9	41.2

¹ calculated at the one-digit ISIC level (international standard industrial classification, see Table 4); for calculation method see Table 1.

² for 1975.

Source: OECD (1985: Table II.3).

This very low index does not indicate a lesser degree of segregation, nor a greater degree of equality between men and women. Composition of the index is such that it is equal to the standard deviation of the coefficients

Table 3: WE index, occupational data for 1985¹

Occupation major groups	United States			Canada			West Germany ²			Japan			Korea		
	CFRs	Ni/N (%)	weighted deviations (%)	CFRs	Ni/N (%)	weighted deviations (%)	CFRs	Ni/N (%)	weighted deviations (%)	CFRs	Ni/N (%)	weighted deviations (%)	CFRs	Ni/N (%)	weighted deviations (%)
1	1.11	15.8	1.6	1.24	16.6	4.0	1.07	15.0	1.1	1.15	9.3	1.3	0.91	5.8	0.5
2	0.81	11.4	2.2	0.76	11.4	2.7	0.55	3.8	1.7	0.17	3.6	3.0	0.09	1.5	1.4
3	1.82	16.2	13.2	1.87	16.9	14.8	1.57	18.8	10.7	1.40	17.6	7.1	0.88	11.5	1.3
4	1.09	11.8	1.1	1.02	9.4	0.2	1.46	9.2	4.3	0.95	14.8	0.7	1.19	15.5	2.8
5	1.37	13.5	5.0	1.32	13.8	4.5	1.46	11.7	5.4	1.37	8.6	3.2	1.57	10.8	6.2
6	0.36	3.2	2.0	0.66	5.2	2.5	1.24	5.4	1.3	1.21	8.6	1.9	1.12	24.6	3.0
7/8/9	0.41	28.1	16.7	0.32	26.7	18.2	0.38	34.5	21.4	0.74	37.1	9.7	0.71	30.3	9.0
X		(100.0)			(100.0)		1.18	1.6	0.3	0.76	0.4	0.1		(100.0)	
Ni/N	44.1 %			42.5 %			38.2 %			39.7 %			39.0 %		
WE index			41.8%			46.9%			46.2 %			27.0%			24.2%

¹ calculated at the ISCO one-digit level.

International standard classification of occupations (ISCO)

- Major group 1 – Professional, technical and related workers
- Major group 2 – Administrative and managerial workers
- Major group 3 – Clerical and related workers
- Major group 4 – Sales workers
- Major group 5 – Service workers
- Major group 6 – Agriculture, animal husbandry and forestry workers, fishermen and hunters
- Major group 7/8/9 – Production and related workers, transport equipment operators and labourers
- Major group X – Workers not classified by occupation

² for 1984

Source: Ōsawa (1992b: Table 3).

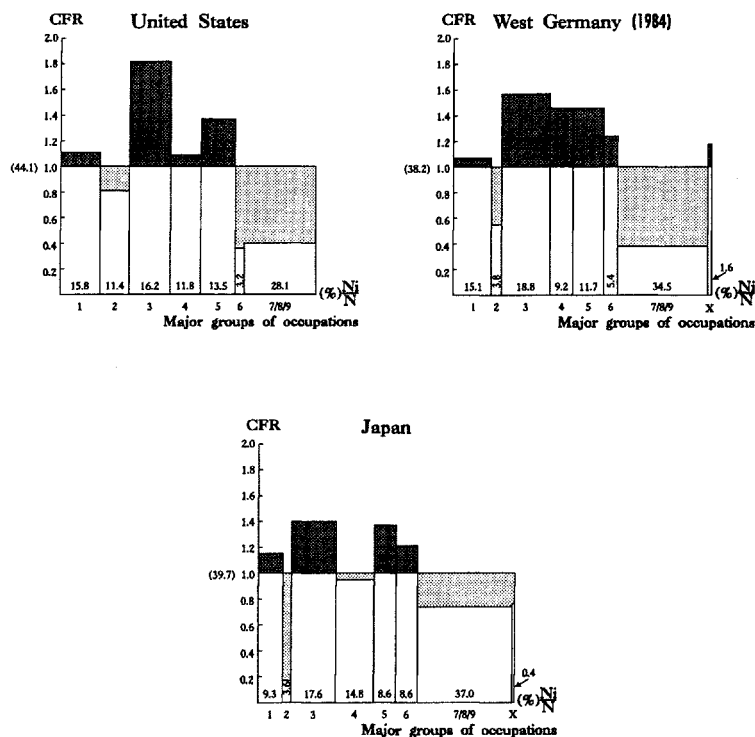
of female representation (CFRs) from unity, weighted by the employment size of each major occupational or industrial sector, and standardized to lie between 0 and 1³. Tables 3 and 4 show the results of my own breakdown of the indices for several countries for the years 1985 and 1986, according to this formula. Figures 1 and 2, based upon Tables 3 and 4, show the CFRs of each group vertically and each group's employment share horizontally, so that the areal sum of the striped or dotted segments represents the index figures (Ōsawa 1992a and 1992b).

Table 4: WE index, industrial sector data of employees for 1986¹

Industry major divisions	United States			Germany			Japan		
	CFRs	N _i /N (%)	weighted deviations (%)	CFRs	N _i /N (%)	weighted deviations (%)	CFRs	N _i /N (%)	weighted deviations (%)
1	0.47	1.8	1.0	0.64	1.1	0.4	0.81	1.0	0.2
2	0.34	0.9	0.6	0.18	1.3	1.1	0.35	0.2	0.1
3	0.73	20.4	5.5	0.78	33.5	7.5	0.98	28.1	0.6
4	0.44	1.4	0.8	0.33	1.0	0.7	0.35	0.7	0.4
5	0.20	6.2	5.0	0.24	6.7	5.1	0.37	9.5	6.0
6	1.08	20.9	1.6	1.50	13.5	6.8	1.25	21.4	5.3
7	0.67	5.7	1.9	0.56	6.1	2.7	0.36	7.6	4.8
8	1.27	10.2	2.8	1.36	6.1	2.2	1.14	8.6	1.2
9	1.37	31.0	11.6	1.28	29.0	8.0	1.25	22.8	5.7
0	0.20	1.6	0.7	1.27	1.6	0.4	0.79	0.2	0.1
		(100.0)			(100.0)			(100.0)	
N _i /N	44.9%			39.0%			36.2%		
WE index			31.5%			34.9%			24.4%

These figures clearly show the differences in the indices among the United States, West Germany and Japan. It can be seen from Figure 1 that the Japanese CFR in occupational group 3 (clerical and related workers) is at the relatively low figure of 1.40, as compared with 1.82 in the States and 1.57 in West Germany. The CFR in groups 7/8/9 (production and related workers, transport equipment operators and labourers) is at the relatively high figure of 0.74, compared with around 0.4 in the others. Figure 2 indicates that in Japan the CFR in industrial section 3 (manufacturing) is close to unity, while in section 9 (community, social and personal services) the employment share stands at the relatively small figure of 22.8% compared with around 30% in the others, and the CFR is lower.

Figure 1: Gender segregation by occupation, 1985



Source: Ōsawa (1992b: Table 3).

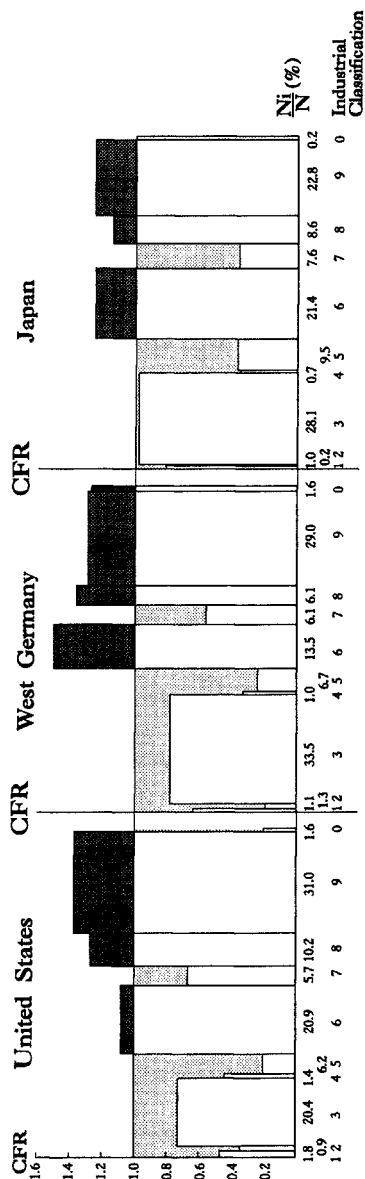
Along with the industrial restructuring that followed the first "oil shock" in 1973, there was a general "feminization" of employment, an increase of the proportion of women employees that paralleled the relative decline of manufacturing industries and the "white-collarization" of the labour force. In Japan, however, manufacturing industries like the electrical/electronics, food and tobacco industries were among the most speedily feminized sectors between 1975 and 1984; since 1985, feminization of employment has been most prominent in the wholesale and retail trade and restaurants where the average wage rate is the lowest among all industries. Among the occupational groups, the proportion of women in employees among professional and technical workers decreased by 1.8% during the period 1975–1990, whereas craftsmen and production process workers experienced a 4.6% increase in the proportion of women employees (Ōsawa 1992a and 1992c).

Thus, we must conclude that gender segregation in Japan takes a rather different form than in the other two countries, and that it cannot be explained in terms of the distribution of men and women across the major industrial sectors or occupational groups. It is instructive to look at differences in the size of enterprises employing men and women, gender differences in jobs or grades within the same company, and sex-specific differences in employment categories.

Enterprise size matters, because 55% of women employees are concentrated in small enterprises (employing less than 99 persons), as contrasted with 45% of men. It is commonly asserted that there is a large wage gap related to company size in Japan, not always acknowledging that the gap is larger among women than men, as shown in Table 5. This table is concerned with only full-time employees and their average monthly earnings excluding overtime pay, so that the wage gap between men and women seems smaller than it really is. Actually, the widening of the wage gap by company size since the mid-1970s has been closely correlated to the general widening of the gap between men and women (from 56% to 49.6%).

Sex-specific differences in employment categories are also related to the wage gap and enterprise size. For example, the percentage of "permanent employees" among women has decreased since the mid-1970s, while the proportion of official "part-time employees" (working less than 35 hours per week) among women has steadily increased, reaching 27.9% in 1990. In 1987 only 60% of employed women were "regular employees", compared with 83% of employed men, and 70% of "regular employees" were men. As Table 6 shows, the probability of working women becoming full-time employees in large-scale enterprises declined during these years, unlike in the case of men. In 1990, 45% of the women part-timers in Japan

Figure 2: Gender segregation by industry, 1986



Source: ILO (1987).

Table 5: Average monthly earnings by sex and company size¹

Average monthly earnings of workers in companies employing 1000 and more persons (in 1000 Yen)			Earnings differentials by company size (1000 and more persons = 100)				Female earnings as % of male earnings by company size		
			Male		Female		1000 and more persons	100-999 persons	10-99 persons
			100-999 persons	10-99 persons	100-999 persons	10-99 persons			
1975	159.9	90.5	88	82	85	78	59.6	57.2	56.3
1976	168.5	101.7	87	82	83	78	60.4	57.3	56.8
1977	185.6	113.3	87	82	85	79	61.0	59.5	59.0
1978	197.5	120.7	87	82	85	79	61.1	59.3	58.9
1979	209.6	127.3	87	82	85	79	60.7	59.5	59.2
1980	223.7	133.9	86	81	86	81	59.9	59.4	59.5
1981	238.7	143.5	86	81	85	80	60.1	59.7	59.2
1982	253.6	149.8	84	79	85	80	59.1	59.2	59.8
1983	262.6	156.7	85	79	84	79	59.7	59.0	59.9
1984	271.4	161.5	86	79	85	79	59.5	58.8	59.9
1985	278.8	172.6	85	79	82	77	61.9	59.3	60.2
1986	289.3	179.3	85	78	81	76	62.0	59.7	60.3
1987	294.4	185.9	85	78	81	76	63.1	60.2	61.2
1988	303.1	192.7	85	79	80	75	63.6	59.9	60.5
1989	318.0	200.0	84	78	80	75	62.9	60.0	60.7

¹ average monthly earnings excluding over-time pay of full-time employees in private sector.

Source: Rōdōshō (various years).

were concentrated in tiny enterprises with less than 29 employees, and a third of the women employees in such enterprises were part-timers.

The wage gap between women part-timers and regular women employees has increased in line with the relative increase in part-timers among all employed women since the early 1970s (their relative wage rate per hour decreased from 90% to 70% of that of regular women employees). It is worth remembering that these figures still underrepresent the size of the real wage gap. For in Japan, besides official part-timers, there are many "pseudo" part-timers who work more than 35 hours per week on part-timers' wage rates but are not included in the statistics for part-timers. The first comprehensive survey of part-time workers that includes this broad definition of part-time work estimates that there are at least one and a half million of these "pseudo" part-timers (Rōdōshō 1992). Al-

Table 6: Numbers of employees by sex, employment categories¹ and size of company (in 100 persons)

	Companies employing											
	1000 and more persons			100-999 persons			10-99 persons			5-9 persons ²		
	male full-time	female full-time	female part-time	male full-time	female full-time	female part-time	male full-time	female full-time	female part-time	male full-time	female full-time	female part-time
1976	43,044	15,763	823	42,494	19,666	1,502	47,965	26,332	2,539	7,981	5,506	
1979	42,337	15,639	1,393	44,786	20,296	2,618	52,414	27,571	4,134	8,727	5,845	
1982	45,523	17,116	2,351	47,652	21,536	4,308	51,691	27,038	5,249	9,150	5,997	
1983	44,907	16,822	2,631	48,558	22,916	4,435	53,893	28,296	5,616	9,111	6,019	
1984	45,470	16,946	2,635	51,106	24,389	4,655	53,314	27,820	6,086	8,821	5,739	
1985	48,051	17,664	2,681	50,957	23,690	4,658	52,623	27,420	6,576	8,251	4,735	1,381
1986	47,755	17,392	2,681	49,049	23,437	4,727	52,967	27,246	6,613	8,300	4,682	1,341
1987	47,990	17,064	3,011	49,046	23,292	5,346	52,351	26,696	6,596	7,904	4,569	1,210
1988	49,703	18,728	4,006	53,909	25,339	6,123	56,936	28,520	8,474	9,102	5,057	1,928
1989	50,975	18,693	3,978	53,264	25,639	6,366	56,078	28,589	8,487	9,098	4,910	1,798

¹ Numbers and wages of male part-time workers have been surveyed only since 1988 and therefore are not included in this table.

² Figures up to 1985 include part-time workers.

Source: Rōdōshō (various years).

though the definition of part-timer differs from one country to another, this wage gap is characteristic of Japan, for the hourly rate of part-timers is roughly equal to that of full-timers in some countries like Sweden and Australia (OECD 1985: 77).

Job or grade segregation within the same company, as Kumazawa Makoto emphasized early, has been the very basis upon which the Japanese "merit system" of labour management rests. Women regular employees have been confined to simple, subsidiary jobs with low pay and small raises, decreasing their incentive to stay with their employers. Thus their years of service are shorter, a fact then used to justify their inferior working conditions. It is the pyramidal structure in which women with low seniority are concentrated at the bottom that enables men to be promoted efficiently and therefore remain committed to their employers (Kumazawa 1984). It is true that women now have slightly better opportunities for promotion than before, but this effect can be achieved by introducing more and more women as non-regular employees.

If we broaden our field of vision to include the subcontracting relationship, we can see even more clearly that the gender segregation described above provides a foundation for the surprisingly high efficiency of large Japanese multinational corporations. It is now widely known that auto-

mobile and electrical/electronics companies in Japan are organized into a huge pyramidal structure with a large multinational corporation on the top and thousands of subcontracting companies and self-employed subcontractors, as well as innumerable "homeworkers" (mostly married women working at home for a low wage) at the bottom (Anasz et al. 1987). Most "family workers", who account for 17% of women with occupations, are working for extremely low wages in very small companies near the bottom of the pyramid. It is revealing that two elaborate field studies on ME innovation in the early 1980s conducted by some of the speakers at this symposium, singled out the subcontracting system and gender segregation as the basis of the international competitiveness of large Japanese corporations.

The first fieldwork study, which was on automobile parts subcontracting companies in a region in Nagano Prefecture, was conducted by Ikeda Masayoshi and others in 1984. The study concluded that the mass appropriation of married women's labour in rural districts "is a basis of the superior international competitiveness of Japanese strategic industries" because of the very low wages paid to these women, who are at the very bottom of the wage scale (Chūō Daigaku Keizai Kenkyūsho 1985: 221–222). A substantial proportion of the very small companies that serve as end subcontractors are also engaged in farming, which puts them in the category of "subsistence production", as mentioned by Morita, rather than being part of the capitalist mode of production (Morita and Kimae 1988: 19).

The second study was a case study on ME innovation at Hitachi by Tokunaga Shigeyoshi and others. The findings concluded that the requisites of the Japanese model are subcontracting relationships, temporary workers, and the employment of "young women workers as regular employees". The latter provides a "labour market buffer" that enables the company to adjust the volume of labour by failing to replace workers as they resign. A certain level of employment is thereby secured for regular male employees, and innovation occurs without any stress in labour relations, thus heightening international competitiveness (Tokunaga and Sugimoto 1990: 351–352).

Unskilled repetitive manual work is also a feature of the factory-automated shop floor, where human beings are used as machines as a consequence of automatization. This kind of work, which is recognized as "unbearable" even by the company's labour section, is assigned only to young regular women employees, who thus have no opportunities to develop skills or improve their job prospects. This type of work, which is difficult to endure and is assigned to women without any special benefits or compensatory measures, "has received no attention from the union, because the

overwhelming majority of these young women stay in the company for only a short time" (Tokunaga and Sugimoto 1990: 239–240, 349).

But, of course, a women's working life is by no means finished after a short-term job in her youth (remember the M-shaped curve of women's labour force participation as a function of age group). Within 10 years after she first quits and has borne children, she is typically re-employed by a small company, probably in the service sector or in wholesale and retail stores and restaurants, as a part-time worker, or in manufacturing as a blue-collar worker. Because she is unlikely to have a skill, her wage is often below the statutory minimum wage. The work is likely to be labour-intensive, though simple and repetitive.

3.2. Unpaid Work

It has been pointed out that Japanese workers have a very narrow focus – that they are too involved in work and the pursuit of short-term efficiency and profitability to have any perspective on the world, the state, society at large, or even their own private lives (Baba 1990). The notorious *karōshi* is an extreme result of this narrow focus (National Defence Counsel for Victims of *Karōshi* 1991). But the adjective "male" is needed in front of the word "workers" in this context. Women cannot be involved in company business so deeply as to lose perspective on "private life", because they are not free of housework even if they are managers of large companies (Josei Shokugyō Zaidan 1990). On the contrary, it is because men delegate all "family responsibilities" to their wives, including the burden of caring for their husbands' health and domestic needs, that men can devote their whole bodies and minds to their work.

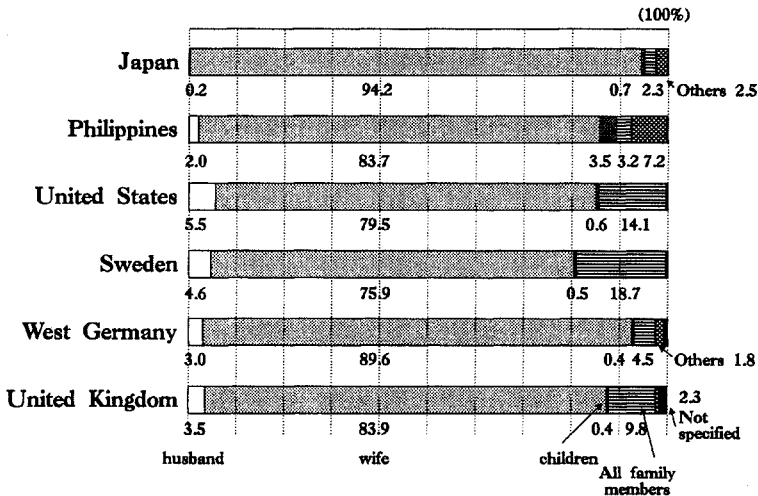
The service rendered by wives has not been supplanted by the so-called "socialization of housework" with the feminization of employment. Rather, gender segregation continues in a new form, in which the husband is available for paid work, the wife for both paid work and housework. Let me refer to the *Survey on Time Use and Leisure Activities 1986* by the Statistics Bureau.⁴ In contemporary Japanese society, the working hours of wives with full-time jobs are the longest of any group if their hours of housework (including child care and shopping) and hours of paid work are added up. The second longest hours worked are those of wives with part-time jobs. The working hours of husbands (whose sleeping hours incidentally are the longest) come next. Working hours of wives without jobs are the shortest, but even their sleeping hours are shorter than those of their husbands. In nuclear family

⁴ A convenient abridgement of this survey is found in Rōdōshō Fujinkyoku (1989).

households of employees, husbands spend 8 minutes a weekday on housework if their wives have jobs, and 7 minutes if they do not. Thus, their life style is not affected by their wives' occupational status.

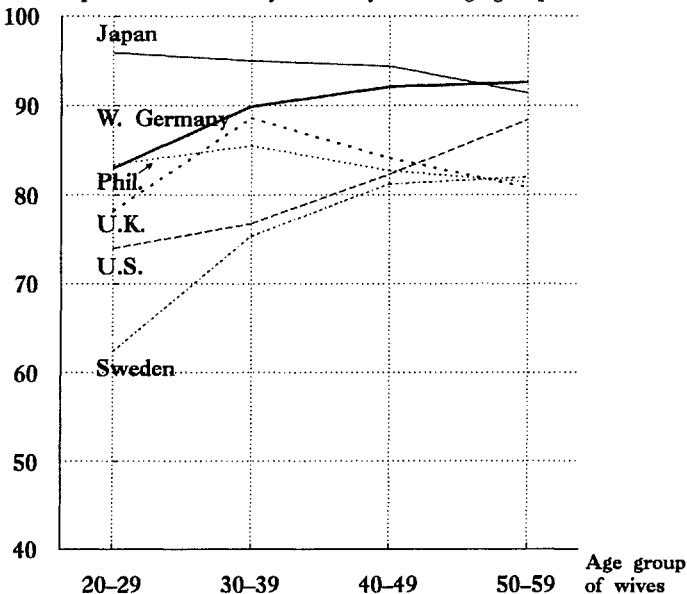
This situation is unusual by international standards. Figures 3 and 4 have been constructed from data collected by the Prime Minister's Office in 1982. This unique comparative study surveyed the performance of the six major household duties of laundry, house-cleaning, cooking and serving meals, doing the dishes, shopping, and child care in these six countries. The degree to which these tasks fell to wives was highest in Japan, followed by West Germany. The differences between Japan and Germany were that, first, in Japan the degree of concentration to wives was higher in younger age groups while in Germany housework tasks tended to be shared by family members in younger age groups, as shown in Figure 4. Second, there was no remarkable difference due to the wives' occupational situation in Japan, but in Germany if wives had full-time jobs they tended to do less housework (Sörifu 1984). More recently, from their survey in the early 1980s focused on Tama New Town in Tokyo, Itō Setsu and others found that the hours spent on housework by Japanese husbands were shorter and those of wives longer, and therefore the "gender division of labour was fixed more rigidly" in Japan than in other countries (Itō and Amano 1989: Chapter 8).

Figure 3: Who prepares most meals?



Source: Sörifu (1984).

Figure 4: Preparation of meals by wives, by wives' age group



Source: Sorifu (1984).

Last year, the Asahi Kasei Institute for the Study of Dual-Income Families published the result of a survey on the life and work of dual-income couples in Tōkyō, London and New York. Results showed that husbands wake up earlier and go to bed later than wives in both London and New York, but in Tokyo the reverse applies. Husbands did 27% of the housework in New York and 23% in London, while in Tokyo the figure was only 6% (Asahi Kasei Tomo Bataraki Kazoku Kenkyūsho 1990). Given these figures, it would be a mystery if Japanese men were not efficient at work.

4. ALTERNATIVE STRATEGIES FOR THE FORMATION OF LABOUR STANDARDS

The long working hours of the Japanese are a cause of international economic friction, and the Japanese government, as well as labour and management, agree that they should be shortened. But this raises two problems. One is that agreed-upon goals seem impossibly far away. The other is that only the hours of paid work of men are being considered.

The main causes of the first problem are the stubborn unwillingness of

companies at a concrete level of negotiation, and the powerlessness of trade unions, which are merely in-house organizations for regular employees. At the same time, the fact cannot be ignored that 33% of trade union members still do not want to decrease their overtime hours, because overtime pay is indispensable in meeting the cost of living, as a recent survey by the Ministry of Labour showed (Rōdōshō 1991). I would not, however, recommend wage raises of the traditional type, which have focused on regular wage rate of the "standards", namely male, middle-aged employees of the large-scale enterprises.

The same survey covered "unpaid overtime work" for the first time in official statistics, showing that only 68% of overtime hours are "adequately compensated", which means only a 25% premium over regular wage rates. This outrageous and illegal practice should be abolished as soon as possible, and the rate of overtime pay should be raised to a substantial level comparable with international standards. To decrease the wage gap between men and women, particularly by improving the discriminatory conditions faced by so-called part-time workers, is an equally urgent necessity. Gender equality in pay might increase the income of poorer households by raising the wages of wives. Shorter working hours will never be realized as long as husbands welcome underpaid (and therefore unnecessarily long) overtime work to meet the high costs of living, or wives work longer hours at low wages that are not adjusted upward periodically.

The latter measure overlaps with the second problem: the long working hours of wives, including housework, which are underpaid or unpaid and therefore deprived of worth. We must learn from the German precedent that the 37-hours or 40-hours working week, ranking with the working time of "pseudo" part-timers in Japan, does not necessarily mean gender equality in the division of housework (Erler 1988: 235). But why not? Here I would like to return to Morita's concept of "unfree wage labour". He says that the secondary position of women in the labour market and their unpaid work at home are two sides of the same coin; in other words, they are determinants of each other. But his discussion suggests that institutions or ideologies outside the market determine women's position at work, and not vice versa (Morita 1990: 70).

It is worth remembering a critical point made by the French materialist feminist Christine Delphy. While consistently emphasizing that housework done by women is unpaid and that exploited housework is the material base of the oppression of women, she does not overlook the point that the systematic discrimination women face in the wage labour market pushes them to marry (Delphy 1984: 20). It has also been pointed out by Sylvia Walby, based upon her historical studies of gender segregation at

work, that women driven to marry on such terms have to take up housework as unpaid labour (Walby 1988: 22). Waiting for men to start doing housework is surely folly if the gender division of labour in employment remains unchanged.

Another point is that we cannot rely on existing trade unions, which over-represent male regular employees, to pursue gender equality of pay or shorter working hours. Furthermore, the Labour Standards Law and Equal Employment Opportunity Law, which are actually in force in Japan, are plainly ineffective in this regard. They lack the basic principle of "equal pay for work of equal value", and fail to proscribe indirect discrimination (Takashima 1990; Asakura 1991). How can these laws be reformed along such lines without organized labour taking an interest in gender equality? Should we expect pressures from, for example, the European Community or former French Prime Minister Cresson in this regard, too?

To turn to the grass-roots level, if part-timers and foreign workers can be organized into local general unions, and are successful in raising and implementing statutory minimum wages in cooperation with local welfare rights movements, substantial improvements might be obtained. It would be highly beneficial for unions not only to make demands on labour administration authorities, but also to offer members opportunities for vocational training, especially middle-aged women and foreigners, who particularly need it. Mutual self-help activities that include the aged, single-parent families, and foreigners would be promising developments. If male activists fail to abandon traditional self-serving strategies, women may get together and organize themselves. In fact, such grass-roots networking by women across the boundaries of traditional socio-labour movements has already begun in certain pockets in Japan today.

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THE CAREERS OF TECHNICAL SPECIALISTS IN JAPAN AND IN WESTERN COUNTRIES

Angelika Ernst

ABSTRACT

Research and development (R&D) managers in Europe and the U.S. recently have increased their efforts to improve the motivation and productivity especially of elderly researchers. One major problem to solve is the partly conflicting ambitions of highly qualified R&D personnel who want to be recognized as top specialists and, at the same time, aim at being promoted to managerial positions. An international comparison of related personnel management concepts in technological forerunner countries – including surveys of large electronic companies of the U.S.A., Japan and Germany – is presented. The results reveal fundamental differences between Japan and the other countries. Whereas in Japan it is widely believed that scientists over the age of 40 are no longer able to carry out front-line R&D tasks, the majority of European and American researchers deny a decline of efficiency above that age. Almost all senior Japanese researchers have managerial status. Nevertheless, they are ambitious to qualify as specialists. A large number of Western R&D personnel, on the other hand, never experience promotion to management positions. Many of them are strongly dissatisfied with their lack of status and rewards.

CONTENTS

1. The question at issue
 2. The structure of the labour market and specialization
 3. Older industrial researchers in Japan and other industrial countries
 4. Discussion of the results
- Bibliography

1. THE QUESTION AT ISSUE¹

The category of the specialist is not clearly defined in discussions. Whereas much has been written on the categories 'occupation', 'activity', 'function' or 'qualification', a systematic examination of the category 'specialist' is lacking. There is also no general agreement on what makes someone a spe-

¹ The findings presented in this paper are based on a survey sponsored by the Volkswagen Foundation, Germany.

cialist. It is clear that specialists have distinguished themselves in a particular field. This, however, also applies to experts. What distinguishes a specialist from an expert? Does a specialist have particularly broad or particularly narrow qualifications? The way the term is used allows us to conclude that specialists, in addition to their technical competence, also have a personal, professional orientation in their field without this involving a fixed categorization, as is the case with the labelling of a profession. Specialization is much more noncommittal than the choice of a profession; it is informal, individually marked and more freely determinable.

The term 'specialist' is more likely to be used in connection with technical fields, even though it is just as applicable in any other field of activity. At the same time it must be pointed out that especially in descriptions of the Japanese labour market, its industrial relations and the organizational peculiarities of the Japanese economy, comparatively frequent reference, direct or indirect, is made to the specialization of employees or plants. A simple explanation for this may be that the profession as an institution has not established itself in Japan and that substitutes for it are needed. In the scholarly literature on the Japanese employment system, specialization was initially looked at more indirectly via its counterpart, the general skills of lifelong employees. In the meantime, the perspective has shifted, and more thought is being given to the necessity for specialization. This was brought about by the lack of highly qualified engineers and natural scientists – the specialists *par excellence* – which is not just a Japanese problem, although it has received particular attention in Japan. The more the Japanese model has infiltrated the organizational concept of Western industries, the more the position of the specialist and of specialization has also shifted to the centre of attention.

In the context of a discussion of labour standards, the concept of specialization is indeed more fruitful than alternative concepts such as occupation or qualification because the concept of specialization encompasses technical competence overlapping with the dimensions of one's career, position in the firm, deployability in the firm, orientation around the internal or external labour market, potential obsolescence and other dimensions. The tension produced by the interplay of these factors is most clearly expressed in career ruptures, such as a change of employer, working place, activity, status or job content. But even without the occurrence of such dramatic events, many employees find that with the passing of the years they must call their specialization into question. How is an older specialist to be assessed? As a failure who did not manage to climb to a managerial position or to be recognized as a respected expert? How is an older specialist to be placed within an organization unit with a younger boss? How much mileage can be obtained with the acquired specializa-

tion? Can an older specialist continually adjust to the new findings and methods in his field? Is there an age limit for top performance in a technical field? If specialization is viewed together with age, there are primarily three problems to be looked at:

- the career as an alternative to specialization;
- the motivation of older specialists;
- employment risks in specialization.

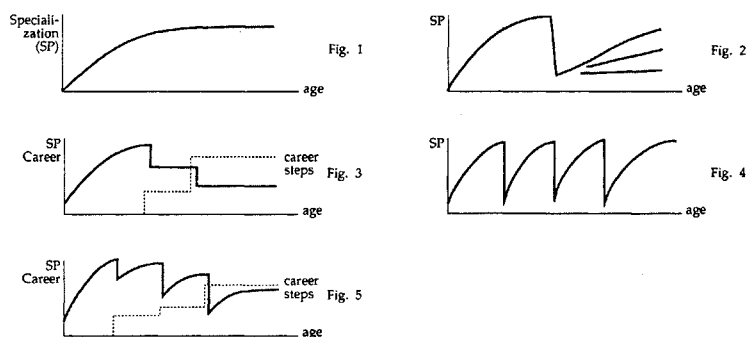
Since specialization is a multi-dimensional concept, there are no simple answers to these questions. The approach used here is to use an international comparison to address this complex area. It could, of course, be objected that this approach brings more confusion than clarity since it increases the number of variables. But it was precisely an international comparative survey that pointed our attention to the problem. Also, with the comparison of several countries it is relatively easy to identify the set of institutional conditions that mark the way specialists are dealt with. This also makes it clear that the assessment of specialists, especially of older persons, is strongly influenced by country-specific sociocultural factors. The international comparative figures quoted in the following are based on surveys of highly qualified engineers and natural scientists in research and development departments of major electrical firms in Japan, the U.S. and Western Germany. The focus is thus a group of persons who can be assumed to have a comparatively strong orientation towards specialization and a potentially high assessment of technical competence. Before presenting selected survey results, we give an outline of the implications of the varying general conditions of the labour market for the position of specialists, in which the focus will be placed on a comparison between Japan and Germany.

2. THE STRUCTURE OF THE LABOUR MARKET AND SPECIALIZATION

Due to the conceptual proximity between profession and specialization, it is useful to place the above questions in the context of segmentation theory. In a national economy with a strongly occupationally oriented labour market, such as Germany, it is presumable that specialization is assessed and valued differently than in Japan, for example – a country with predominantly company-oriented internal labour markets. The estimation given to a profession and its functionality in the labour market in the German case is no doubt transferable to specialization, whereas in the Japanese case the concept of specialization has *a priori* no positive connotation. The much cited general skills of the elite Japanese employees argues against a strong position for specialists in large Japanese enterprises. Instead, one could presuppose a

latent conflict between the company's interest and those of the specialists. The *initial hypothesis* would thus be: specialization is to be found to a lesser extent in Japan than in Western industrial countries, especially Germany. When specialists emerge in Japan, their profile is company-determined and not individual. Specialists' career outlook, their recognition as such and their employment stability are not as great as in the countries compared. For older specialists, insofar as they exist at all in Japan, the general conditions and risks are correspondingly less favourable.

Figures 1–5: Patterns of specialization processes



To clarify the varying ways specialization is dealt with in different labour market systems, we have constructed a variety of age-oriented processes of specialization according to several ideal-type patterns. The main objective is to contrast the development of specialization in a professionally dominated labour market and in a company-dominated labour market. In some cases, the component "promotion" will be looked at as an alternative to specialization.

Figure 2 assumes for the same group of people that they were unable to continue to use their special qualification due to some dramatic event and had to find a new orientation. Examples here would be technological changes, dismissals or occupational interruptions for family reasons. When they continue their occupation in a changed context, they acquire a new specialization. The fanning out of the original line into several curves is intended to show that the original can be quite different from the new specialization.

The third pattern depicts a rapid break in specialization due to career decisions. This pattern applies, for example, when a team member is promoted to group leader and from this time on can no longer be concerned with the individual aspects of a project or business area but must ensure the

functioning of the entire working process. With continuing advancement to higher levels, it is assumed that the variety of business areas to be supervised continues to increase and that the employee's remaining specialization further declines. Ultimately, a manager emerges who oversees the entire breadth of a range of products or topics but who has no actual technical competence in a particular area. The objection can, of course, be also raised that with the assumption of managerial functions, a specialization in directing activities is acquired and that there is not necessarily a reduction of the degree of specialization but only an exchange of differing specializations. This objection is justified to a certain extent but cannot be taken into account since we are concerned with demonstrating the reciprocally conditioned changes between technical specialization and directing competence.

The fourth pattern describes the ups and downs of the specialization degree of an employee who changes his working field several times for training purposes, due to transfers, reorganization or planned rotation within the enterprise. It is assumed that these processes are not linked to changes in hierarchical position. The horizontal saw-tooth curves shown in Figure 4 show the case where the employee changes to a field that has no links in content to the previous position so that each time the qualification process must start from scratch. This model is not likely to apply to the entire career path but can certainly occur during the initial years of employment. Depending on whether and to what extent the areas of work are related in terms of content, the curve as a whole will display a slope. If an employee rotates between overlapping areas of work, his experience is rounded off in a rising degree of specialization, and the saw-tooths must be drawn with rising amplitudes.

The last pattern shows the more complex and possibly more realistic situation of a company-internal rotation between related technical fields, whereby from a certain age onward a change of tasks is linked with promotion. From this point there is a trade-off between specialization and promotion. Figure 5 could be seen as a synthesis of the patterns in Figures 3 and 4. The slope of the declining degree of specialization at mid-career primarily depends on two factors: the extent of substitution for specialized labour of managerial tasks and whether the promotion is linked with new technical tasks or takes place in the previous area of work.

The schematic descriptions can only be seen as a rough approximation of the variety of conceivable combinations of specialization and advancement. The first two patterns correspond to a career path in an occupationally oriented labour market and the last two to qualifications and career in an internal labour market. Figure 3 shows the frequently assumed opposing directions of specialization and career. The number of constellations could be enlarged by further differentiating the variables (according

to the nature of the technical area, qualification, system of promotion, etc.) and making combinations.

Which parameter can be used to introduce the dimension of age? With advancing age, independent of the labour market systems, we can expect changes in a number of variables by which in each case the question is raised of what expectations society has of older people and how it reacts to age-related behaviour patterns, how the personnel system deals with the age factor, and whether older employees are accepted in the socio-economic context:

- The attitude of a society *vis-à-vis* age in general, whether this is marked by respect or distancing, influences the development possibilities of older employees. These cultural components have a direct effect on employment in terms of concepts of career patterns, age considerations in career decisions, or the formation of teams. The possible variations are numerous. To point out the two extreme poles, we have, on the one hand, the attitude that with increasing age the work content, burden and areas of responsibility of the employee must necessarily change and, on the other hand, the assumption that age and employment conditions do not necessarily affect each other.
- In company personnel policy the basic attitude towards age is most clearly expressed in promotion decisions. If experience and human qualities are highly valued in a firm, seniority will be an important component in filling managerial positions. If technical competence and drive are important, a comparatively minor role will be assigned to age.
- The overall labour market situation and the relation of supply and demand in specialist qualifications affect the occupational position of older employees. The job security of older employees is more endangered in the case of low overall labour demand; with a high level of employment, older employees are also in demand. This group is a part of the classical buffer in the labour market. Theoretically, the employment risk of older specialists is higher than that of broadly qualified older employees because the number of likely jobs is potentially smaller than that for generalists. The situation only takes on a different appearance when, deviating from the overall labour market situation, there is a labour shortage in individual skilled areas.
- Technical progress, or economic development in a field of technology, poses as an acute or latent threat to a specialization acquired over the years; a specialist who does not keep abreast of his field is in danger of losing his footing. Major technological change (e.g., change from traditional to EDP printing methods, abandonment of structurally weak industries, elimination of socially unacceptable technologies) can lead to the total devaluation of the usable qualifications of a previously

efficient employee. The danger for the individual depends on how broad or narrow his specialization happens to be.

This rough sketch of the problem constellation describes the arena in which firms and individuals must make their decisions regarding the labour content and status of older employees. The way that Japanese firms and German and American firms and employees react to this problem will be exemplified in the following section with respect to highly qualified industrial researchers.

3. OLDER INDUSTRIAL RESEARCHERS IN JAPAN AND THE OTHER INDUSTRIAL COUNTRIES

The empirical findings presented here are based on a comparative study conducted in Japan, Germany and the U.S. on the career paths of engineers and natural scientists in industrial research. The findings are thus applicable only to technically highly qualified employees; generalizations or transferring the conclusions to non-technically specialized workers or to blue-collar staff are likely to be problematic. The group selected is suitable for a discussion of the relation between age and specialization because its members are characterized by strong technical and career ambitions and because they must deal more intensively than other technically oriented employees with technical progress, being responsible for shaping its course. The specialization of industrial researchers has a strong dynamic component.

The comparability of country results is ensured by having conducted the survey in large electrical firms in the R&D labs specializing in hardware development. In each of the three countries, 260 engineers or natural scientists (university graduates) were questioned; a systematic selection (alphabetically or numerically) ensured that the hierarchical distribution was well represented in each country.² In Japan the survey approach was implemented with no hindrances. In Germany some reservations by individuals in the survey group impeded a consistent implementation of

² In Japan the survey was supported by the Japan Productivity Center. It was conducted by a team under the supervision of Prof. Kōichirō Imano, Tōkyō Gakugei University. The U.S. study was commissioned by the Office of Technology Assessment and conducted by Prof. Philipp Shapira, Georgia Institute of Public Policy, Atlanta. The German study was done by the author together with Dr. G. Wiesner. The survey took place in Japan in 1988/89 and in Germany in 1989/90. For overall results see the publications of the Japan Productivity Center (Nihon Seisansei Honbu 1991).

the projected survey method. A sufficiently large sample was, however, achieved in all countries.

A differentiation of results according to age was achieved by dividing survey participants into a group under 40 and a group over 40 years of age. This choice was based on survey results which indicated that by this age at the latest a decision must be made for specialization or for career orientation. It was precisely these age-specific survey results that prompted the discussion on the varying positions of specialists in the three countries. In order to present the differences in the profiles of older industrial researchers, the following selected survey results will be expressed in a three-country comparison.

1. The first fundamental difference between the Japanese sample, on the one hand, and the American and German overall survey results on the other, is the differing share of the upper age group. In the labs surveyed in the Western countries, a good one third of industrial researchers were older than 40 (U.S. 35%, Germany 34%); in Japanese R&D departments the older engineers/natural scientists accounted for, on average, only about one fifth (Japan 19%).

Table 1: Ages of industrial researchers in Japan, the U.S.A. and Germany (in %)

Age group	Japan	U.S.A.	Germany
–30 years	31	25	15
31–35 "	22	22	32
36–40 "	26	16	19
41–50 "	19	21	23
51– "	–	14	11
n.a.	2	2	–
Total	100 (N=272)	100 (N=271)	100 (N=261)

Source: Data collected by Japan Productivity Center, Office of Technology Assessment U.S.A. and ifo Institut für Economic Research (Germany).

The low *proportion of older employees* in Japanese firms could be explained by the differing overall age structure of the staffs of major Japanese and Western industrial firms. The comparatively low retirement age in Japan and the tendency of larger Japanese companies to reduce top-heaviness in the age structure of the staff speak for this assumption. Nevertheless, there are indications that Japanese corporations, in addition, systematically and successfully work at severing engineers beyond the age of 40

from the R&D departments. The fact alone that those over 50 were not at all encountered in Japan, but compose 10% of the sample from Germany and the U.S., points towards a targeted age-specific personnel policy for this age group in Japanese companies. Additional survey findings support this assumption.

2. Perhaps the most important prerequisite for the varying personnel-policy treatment of older industrial researchers lies in the attitudes of the persons affected. For researchers who themselves see an age boundary for mastering certain research tasks, it is easier to achieve their removal from this area after having reached this age. Conversely, for persons in the above-40 group who are confident of their task-performing ability, transferral to other areas might be more difficult. The survey thus contained a question on the personal estimation of the top age for performing demanding R&D work.

Table 2: Answers of Japanese, American and German industrial researchers to the question "Up to what age is an engineer/scientist able to do R&D-work in the most advanced fields?" (in %)

Age limit	Japan	U.S.A.	Germany
35 years	22	2	1
40 years	32	3	4
45 years	26	3	7
50 years	3	3	8
over 50 years	–	12	8
no age limit	17	77	72
Total	100 (N=270)	100 (N=268)	100 (N=258)

Source: See Table 1.

The reply to this question points out the striking difference between Japan on the one hand, and Germany and the U.S. on the other. Whereas the large majority of Western industrial researchers surveyed saw no age limit for top industrial research (U.S. 77%; Germany 72%), and in both cases only 5% of the sample felt that those over 40 can no longer perform adequately, the opinions in Japan were nearly the opposite. 54% of Japanese R&D personnel indicated that engineers/natural scientists beyond 40 can no longer do successful research in the newest fields. Only one in six of the Japanese agreed with the majority of Western engineers that there is no age limit for R&D activity.

For the formation of specialists, these estimations are important. The model depicted in Figure 1 of an initially rising technical competency curve that maintains its high level towards the end is incompatible with the basic Japanese attitude toward the technical performance of older engineers/natural scientists. According to ways of thinking of American and German researchers, such a pattern of "technical continuity" could indeed be realized. This differing attitude about the top age for research activity can certainly be seen as an explanation of the age distribution of R&D personnel in the three countries. Japanese employers and possibly the employees themselves evidently do not allow specializations that would continually develop throughout the course of a career. These yet approximate results fit the picture of the general skills of the life-long employees of Japanese corporations. Of course, this still says nothing about the extent of engineers' specialization up to the point where they leave R&D; and, to be sure, leaving R&D need not be coterminous with a new technical orientation. In order to identify the features of specialization in Japanese firms, additional information is required.

3. The available data contain information on *how long engineers remain in the R&D area of the same firm*. A longer period is an indicator for specialization in a thematically limited R&D activity. This says nothing about changes in subjects or technical fields within this working area as a whole. But continuous employment alone as a researcher/developer in the same firm stands in opposition to the generalist model that is based on rotation between various areas within the firm.

Table 3: Tenure of elderly engineers/scientists¹ in R&D-work within their present company in Japan, the U.S.A. and Germany (in%)

Tenure (years)	Japan	U.S.A.	Germany
- 5	10	29	18
6-10	2	17	18
11-15	21	11	19
16-	67	42	42
n.a.	-	1	3
Total	100 (N=52)	100 (N=97)	100 (N=88)

¹ Engineers/scientists listed in this table are over 40 years old.

Source: See Table 1.

Table 3 lists only those persons over 40. In the Japanese case, a duration of 16 years or more (due to the absence of the over 50) means that the person in question, during the entire period in which he was employed as a fully trained engineer, was active in the R&D area. In light of the insufficient university engineering education in Japan, an engineer/natural scientist begins his career with a company training phase lasting several years; in most cases it is not until their late twenties that they are ready for independent work in R&D. In the other two countries, similarly clear divisions cannot be made since the groups also include those over 50 and since the age for starting one's occupation is less standardized than in Japan. The survey showed that two thirds of the older Japanese industrial researchers were active in R&D for more than one and a half decades. This provides a strong indication for the fact that most Japanese industrial researchers have been employed in the same field of activity for the entire productive core period of their careers. The share of older engineers/natural scientists, who have been less than 10 years in research and thus were certainly in other areas, is – at 12% – much lower in Japan than in the two other countries. In the U.S. the share of these "mobile" industrial researchers is nearly half (46%); in Germany, more than one third (36%). The picture of the company-wide, mobile generalist is not supported by these findings for Japanese R&D personnel. Instead, the figures indicate that a group of persons has been identified that in Japan too is characterized by a strong continuity in task profile and that is thus also marked by a clear specialization.

4. The interpretation of the results on length of service in R&D labs can be validated by statements of R&D personnel on the *likelihood of transferral within/outside the R&D area*. The corresponding question permitted multiple listings in a selection of eight target areas. In the following table, the statements are grouped together in two blocks, R&D internal and external.

Table 4: Likelihood of transferral of R&D-employees in Japan, the U.S.A. and Germany within and outside R&D departments (answers as % of participants; in brackets, persons older than 40 years)

Probable next kind of job	Japan	U.S.A.	Germany
R&D department, design	130 (122)	103 (114)	112 (113)
Outside of R&D department	70 (71)	46 (40)	28 (50)
	(N=161)	(N=93)	(N=100)

Source: See Table 1.

A good number of participants failed to answer this question: about 60% of the Japanese, one third of the Americans and about 40% of the Germans.

It can be assumed that the people who did not answer it do not anticipate transferral. In the contrasting group that considers transferral likely, R&D internal activity in the broad sense was listed much more frequently in all three countries than activity outside of R&D. In both blocks, the numbers for Japan are higher than those of Germany or the U.S. Thus, Japanese industrial researchers expect to be transferred more often than Germans or Americans. But the likelihood that these transfers remain limited to within the R&D area are by and large the same in the three countries. The reactions of the older survey participants hardly differed from the overall survey results. Thus, the findings confirm the conclusion drawn above that the technical orientation and thus also the specialization tendencies of Japanese industrial researchers do not differ fundamentally from the situation observed in Germany and the U.S.

5. To check the personal preferences of R&D personnel in relation to work content, a question was placed in the survey on *desired future activity* differentiated according to type of activity within the R&D area and the firm's organizational units.

Table 5: Answers of Japanese, American and German industrial researchers to the question "What kind of activity do you want to do in the future?"
(answers in %, in brackets for persons older than 40 years)

Desired activity	Japan	U.S.A.	Germany
Specialist work in R&D projects	60 (44)	46 (48)	30 (26)
Management tasks in R&D department	26 (33)	36 (35)	53 (55)
Activity in production	3	2	1
Activity in sales	1	3	3
Other	8	10	10
No preference	2	3	4
Total	100 (N=271)	100 (N=267)	100 (N=259)

Source: See Table 1.

Japanese engineers/natural scientists indicated more frequently than the Americans or Germans that in future they would most like to work as specialists in R&D projects. A total of 60% – and even 44% of those over 40 – listed this preference. Here, the specialization orientation was even stronger in Japan than in the other two countries. The wish to assume a managerial task in R&D was weaker among the Japanese survey participants than among the Germans especially, but also weaker among the

American researchers. Astonishing indeed was the opposite distribution of Japanese and German preferences. Whereas the Japanese dream of lives as specialists, most of the German researchers strive for tasks in research management. An explanation of this finding will be provided later in connection with the distribution of industrial researchers in hierarchical positions. Here it can only be emphasized that the desire of industrial researchers to transfer to work in production, sales or other R&D external fields is equally low in all three countries. While mention is often made of the greater transdepartmental mobility of the Japanese compared to Western researchers, the evidence here allows us to conclude that this must be a forced mobility.

6. To verify how serious the Japanese desire for continuing specialization within their R&D activity in fact is, we can consider the statements of survey participants on the *status of specialist knowledge* in their personal goals.

Table 6: Ranking of specialization¹ within the personal ambitions of industrial researchers in Japan, the U.S.A. and Germany

Kind of knowledge	Japan	U.S.A.	Germany
Knowledge of one's specialist field	1,59	1,92	2,05
Knowledge in neighbouring fields	1,59	1,86	1,87

¹ Ranking: 1 = very important, 2 = important, 3 = less important, 4 = unimportant

Source: See Table 1.

The number rankings in the above table show that for Japanese industrial researchers, the development of special knowledge is even more important than it is for the Americans or Germans. Even though the desire for activity as a specialized researcher can still be interpreted as a noncommittal utterance, the figures in Table 6 lend support to the assumption that in Japan as well, specialization has a high status. The fact that the Japanese rankings are equally high for both answers indicates that the Japanese avoid a too-narrow specialization. The difference between the Japanese and the American and German rankings can be due to the fact that Western researchers generally already have a sounder specialist competency than the Japanese; therefore they tend to find expansion into neighbouring fields more important than deepening their knowledge.

7. As shown in the schematic drawings in Figures 3 and 5, the specialization of an employee can stand at odds with his career. For an industrial researcher, specialization is an initial career prerequisite; later on, after more administrative tasks are assumed, a balance must be found between

specialization and the development of managerial competence and overall knowledge. The higher the hierarchical position, the more the weight shifts to the latter area. No small number of scientists find the necessarily associated loss of technical competence unpleasant. Personnel managers also refer to the psychological barriers for young researchers and developers when first assuming project or group leadership. On the other hand, there are wide-spread complaints from Western industrial labs about the lack of advancement opportunities. What is the situation, in contrast, with the age *distribution* of highly qualified Japanese R&D personnel in *managerial* positions?

Table 7: Management position of young and elderly industrial researchers in Japan, the U.S.A. and Germany (in %)

Management position	Persons up to 40 years			Persons older than 40 years		
	Japan	U.S.A.	Germany	Japan	U.S.A.	Germany
R&D-personnel without management tasks	58	77	87	2	44	39
Section chief	32	16	10	6	36	20
Department chief or above	7	3	2	92	18	40
n.a.	3	4	1	–	1	1
	100 (N=145)	100 (N=128)	100 (N=124)	100 (N=52)	100 (N=97)	100 (N=88)

Source: See Table 1.

The results for Japan differ greatly from those for Germany or the U.S. Already in the age group up to 40, and even more for older staff, the share of Japanese industrial researchers *with managerial tasks* is much higher than in comparable groups in America or Germany. Whereas 32% of the younger Japanese have already attained group-leader status, this applies only to one sixth of the Americans and one tenth of the Germans. Already 7% of the younger Japanese researchers/developers (U.S. 3%; Germany 2%) were at the “department head” rank or higher. For those over 40 the differences were even greater. At this age there are nearly no Japanese industrial researchers who do not have managerial status. Nine out of ten over-40 Japanese engineers/natural scientists in R&D have the rank of department head or a higher position.

A direct numerical comparison with the German results is difficult since in the selection of the German survey participants the random-sample procedure was not always maintained. Managers tend to be under-represented in the German sample. It is therefore certainly the case that in contrast to the situation in Japan, a large portion of older American and German industrial researchers *do not attain managerial positions*. Based on

a rough estimate, nearly one in two researchers/developers in the U.S. and Germany spend their entire careers as specialists and experience no advancement in the firm. The survey responses on participants' satisfaction or dissatisfaction with their working situation in R&D refer in Germany and the U.S. primarily to promotion prospects. Complaints about the lack of career opportunities and uncertain personnel policies are at the top of the list.

To verify whether managerial status is actually achieved by the assumption of managerial tasks, a question was included on the position of the individual within the R&D project he considered most important.

Table 8: Position of young and elderly industrial researchers in their project teams in Japan, the U.S.A. and Germany (in %)

Position	Persons up to 40 years			Persons older than 40		
	Japan	U.S.A.	Germany	Japan	U.S.A.	Germany
R&D staff	69	49	81	8	33	43
Deputy project leader	22	13	8	8	13	8
Project leader or above	9	41	11	83	54	49
Total	100	100	100	100	100	100

Source: See Table 1.

For Japan and Germany, a comparison of Tables 7 and 8 shows largely the same distribution pattern. Managerial status as a rule is also linked with project-leadership tasks. Only in the case of younger Japanese researchers/developers does the position of group leader not seem to be always synonymous with a directing task. The U.S. values show the peculiarity that project leadership can indeed be exercised by researchers/developers without hierarchical status.

The conclusion that can be drawn is that it is less the specialization than the managerial profile that clearly distinguishes Japanese, American and German industrial researchers as well as their basic attitudes toward the age-specific performance capabilities of this group.

4. DISCUSSION OF THE RESULTS

The empirical results presented are not suited to describe in detail the forms and contents of specialization in Japanese and Western enterprises. However, they may well be used to discuss the initial hypothesis concerning the weak tendency of Japanese engineers to specialize and modify if necessary. The assumption that technically qualified employees in Japan

tend to specialize much less than their Western – especially German – colleagues turns out to be incorrect. Considering the amount of time spent on R&D and the ambitions of researchers (even of the elderly) to reach a high degree of specialization in order to benefit from the high prestige associated with specialized knowledge, one notices that Japanese engineers and scientists aimed at high levels of specialization much more than any other of their fellows in other countries.

The surprisingly high proportion of researchers in managerial positions in Japanese companies in comparison to the U.S.A. and to Western Germany may cause some confusion. Given the assumption that any promotion in the hierarchy leads to a substitution of leadership responsibility for scientific knowledge and taking into account an ever-increasing degree of substitution caused by further promotion, those observations made in Japan do look rather contradictory. Quite evidently, Japanese researchers – even those advanced in years – seem to be able to combine managerial tasks with a high degree of specialization in technical matters. These results may be interpreted in several ways. We shall assess some possible approaches which will then lead us to a modified hypothesis on generalist-versus-specialist concepts for technically qualified employees in large Japanese enterprises.

First of all, one should see whether Japanese researchers do consider specialized knowledge as a part of their personal identity. Although the questionnaire made a clear distinction between “field of specialization” (*senmon bunya*) and “technical knowledge” it might be that Japanese researchers do have a different understanding of the wording than their German or American colleagues. If one considers the whole range of possible meanings for the above term, it seems likely that Japanese employees tend to think of dealing with a technical topic for a limited period of time rather than associating it with lifelong focusing on one single field of technology. “Specialization” in this case would mean expertise instead of personal orientation towards one special branch of science. A survey done by Friedman (1987: 359) showed that Japanese software-engineers do not consider themselves specialists, though by Western standards they undoubtedly are. A change in domain should not be as fundamental an event for an expert as for a specialist, in the most comprehensive meaning of the term. However, one should notice that experts can easily become specialists if that kind of development is fostered by the company’s personnel system.

The results obtained may lead to the conclusion that Japanese companies aim at fully deploying their employees’ technical abilities but at the same time try to counter the development of specialists’ attitudes. The widespread perception among Japanese researchers of an age limit for

R&D activities provides clear evidence for this kind of approach. Although Japanese engineers and scientists are perfectly aware of the fact that many physicians, engineers and specialists have been highly successful in their later years in foreign companies and in Japanese research institutions, the idea of an age limit for R&D activities is fixed in the minds of virtually all research staff in large Japanese companies. Even the fact that numerous researchers have themselves surpassed the alleged age limit does not change this opinion. A person convinced that the quality of research work will drop once the age of 40 years is reached will not plan for continuous work in this field but will always anticipate a later change in working environment. Although the desire for continuous work in R&D does exist in Japan, companies seem to suppress these wishes, in order to prevent the over-ageing of their R&D-departments and possibly also to counter the calcifying of specialists' attitudes.

The second fundamental obstacle to specialization is the system of promoting in large Japanese enterprises. In general, Japanese researchers are promoted at an earlier stage and on many more occasions than those in the U.S.A. or in West Germany. Still, foreign researchers who have spent some time in Japanese laboratories have reported that researchers promoted to the lower ranks of the hierarchy usually had a work-pattern very close to those researchers who so far had no managerial positions. Dispositive functions are rarely taken on by them; they are meant to motivate, educate and assess younger colleagues. Such an exposed position does not obstruct a further deployment of technical skills; rather, the opposite is true. Often these younger managers are referred to as "playing managers." Still, the foregoing promotion, which makes a widening of the horizon essential, leaves only little time and space for "nestling" in highly specialized matters. Early promotion is a reward for having achieved technical competence and is meant to generate ambitions in research as well as in careers. "Nerds" will not succeed in this setting.

At the same time one must notice that Japanese researchers in managerial positions generally bear a smaller work load than their Western colleagues. This is true even in the higher ranks. Only 25% of Japanese researchers already promoted to the level of section-chief or further held the responsibility for four or more projects, whereas two-thirds (67%) of researchers in the U.S.A. and almost three quarters (73%) in Germany held such responsibility. Nearly half of the Japanese managers (41%) questioned were responsible for only two projects; in the U.S.A. this was true for 24% and in Germany for a mere 16%. The comparatively low variety of responsibility in Japan could imply that these promoted researchers spend less time on managerial tasks than their colleagues in other coun-

tries, leaving them with more time for technical work.³ Thus, the trade-off between specialization and hierarchical promotion seems to be less intense in Japan than in the other countries analyzed. Whereas in Germany promotion of researchers is identical with a gradual withdrawal from dealing with research problems and an eventual change in the researcher's field of work, this turn-around tends to be less pronounced with Japanese executives. Classifying the above results in a rough way, Western researchers either reach very high levels of specialized knowledge or are promoted, which results in a gradual loss of their technical orientation. Such a clearcut distinction cannot be observed in Japan, where up to a certain level R&D staff are promoted without neglecting their scientific tasks.

In the framework of these observations, what are the consequences for elderly, technically skilled employees? Irrespective of specific circumstances which differ from one country to another, older employees always have more problems adjusting to new working environments than younger ones. Adapting themselves to changes in technology, to reorganization, to economic slumps, to structural alterations, to new management styles or to a change in status usually affects older persons more than younger ones. This makes the topic of specialization one to be considered in the context of labour standards. The above comparison raises the question of whether a high degree of specialization, a managerial position or a combination of the two does provide the background best suited for older employees in adapting to new circumstances. Assuming that a high number of options does increase an employee's facility to adapt to a differing situation, those which are exclusively research-oriented as well as those who do accomplish managerial tasks are placed at a disadvantage against those working within a wider frame of possible functions. In the light of this observation, one could conclude that elderly Japanese researchers have much less difficulty in adapting to new requirements than many American and the great majority of German R&D staff. The data available are not yet sufficient for this topic to be covered even in a superficial manner. This new hypothesis will be our concluding statement, and we hope that it will lead to further studying.

³ A comparative study on careers in British and Japanese enterprises gives evidence for the fact that "...the meaning of a 'career path' differed between the two countries...career moves [in Japan] ...did not necessarily involve changes of function." Besides, that it became clear that the Japanese managers were more specialized than the British. Their experience was limited to a smaller number of management functions. See Storey et al. (1991).

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THE FORMATION OF RENGŌ AND STRATEGIES OF THE JAPANESE LABOUR MOVEMENT FOR THE DEVELOPMENT OF LABOUR STANDARDS

Takagi Ikurō

ABSTRACT

Rengō (Japan Trade Unions Confederation, JTUC), founded in 1989, has become the most important centre of trade unions in Japan, at least from the quantitative point of view. In this paper the historical background finally leading to the foundation of Rengō and the structure and character of enterprise unions which still constitute the basis of the Japanese trade unionism are examined. Then Rengō's strategies toward the development of labour standards, in particular toward that of working hours reduction are discussed. Although Rengō states "we will realize a relaxed way of life based on due regard for humanity" including shorter working hours, it does not have sufficient power to directly achieve its aims as the basic structure of Japan's peculiar industrial relations remained unchanged. As a result, Rengō relies upon the enactment or administrative guidance instead of collective bargaining and national 'consensus' instead of industrial disputes. It is concluded that Japanese unions have not yet gained enough power to establish better labour standards.

CONTENTS

1. The formation of Rengō and three major streams
2. Ideology, functions and unionization
3. Strategies for the development of a labour standard: the reduction of working hours

Bibliography

Appendix: Names of labour unions, national centres and federations

1. THE FORMATION OF RENGŌ AND THREE MAJOR STREAMS

In December 1989, Rengō (Japanese Trade Unions Confederation, JTUC)¹ was founded. On the same day, Sōhyō (General Council of Trade Unions of Japan), which had been the largest national centre of trade unions in

¹ In this paper abbreviations for the Japanese names of the unions are used. An appendix gives the complete names and their English translations.

Japan, dissolved itself. Dōmei (Japanese Confederation of Labour), the right-wing rival national centre, and Chūritsu Rōren (Federation of Independent Unions) also dissolved themselves. The formation of Rengō marked a new epoch in the history of the Japanese trade union movement. Rengō does not organize all of the unions in Japan. There are two other national organizations, one of which, Zenrōren, calls itself the "genuine" national centre². Moreover, many independent enterprise-based unions – in fact, in-house unions – as well as independent small community unions still exist.

Table 1: Number of unions and members by affiliation

Affiliation	Number of unions	Number of union members	Share of union members
Rengō	13,230	7,613,517	62.1
Zenrōren	2,154	835,005	6.8
Zenrōkyō	200	290,311	2.4
Unions not affiliated with national centres	2,009	1,295,082	10.6
Unions not affiliated with federations	15,904	2,603,063	21.2
Total	33,270	12,264,509	100.0

Data based on the *Labour Union Basic Survey 1990* (Rōdōkumiai kiso chōsa 1990)

Source: Rōdō Daijin Kanbō Chōsabu (1991: 89).

Nevertheless Rengō has become, in fact, the only national centre of trade unions in Japan, at least from the quantitative point of view. Table 1 shows that the share of Rengō in the total membership of trade unions is about 60%. When Sōhyō, which then called itself the "mother body" for trade union unification began its activities in 1950, its share was about 56% but that soon began to decline, and from the mid-1970s to the end of the 1980s it stayed at about 35%. During the same period, the share of the independent unions was also about 35%, but the share of the rival unions against Rengō is a lot smaller.

From the historical point of view, three large streams of the conventional trade union movement have run together into Rengō: the main

² The other centre is Zenrōkyō (National Trade Union Council).

stream of Sōhyō (the minority group of Sōhyō mainly led by the Communists has not joined Rengō, and formed the Zenrōren), Dōmei, and the enterprise unionism of big businesses in the private industries, which is represented, for example, by Kinzoku Rōkyō (IMF-JC, International Metalworkers' Federation – Japan Council).

The majority of Sōhyō membership belonged to the unions organizing the workers of such public-sector enterprises as Japan National Railways (now privatized JR companies), National Telegraph and Telephone Corporation (NTT, also privatized), the operational sector of the Ministry of Posts and Telecommunications and the local governments. In general, these unions were militant and had close relations with the Japan Socialist Party, the largest opposition party in the Diet. Until the mid-1980s their formal policies, or ideologically expressed statements, had been to some extent influenced by class-struggle doctrine or Marxism. Many of the Sōhyō-affiliated unions in the private industries, which concentrated on organizing workers in medium- and small-sized enterprises, were also of militant persuasion.

Schematically speaking, Dōmei, the previously second large national centre of trade unions, organized the workers of conventional private industries such as textiles, marine industries and metal-working. Sometimes, especially in the case of some industrial disputes, Dōmei or the industrial federations belonging to Dōmei organized the other unions, forming so-called second unions in enterprises where Sōhyō-affiliated unions already existed. Ideologically Dōmei expressed a clear anti-communism and politically supported the Democratic Socialist Party. The Dōmei philosophy was based on the idea of *cooperation in production, confrontation over the distribution of profit*. In general, Dōmei was a right-wing rival of Sōhyō.

When IMF-JC was formed in 1964, it described itself as only a “window” to the International Metalworkers' Federation and stated that it would not establish domestic policies and not demand special status as an internal labour organization, because each of the IMF-JC-affiliated unions had been under a different national centre; i.e. Tekkō Rōren (Japanese Federation of Iron & Steel Workers' Unions) under Sōhyō, Jidōsha Sōren (Federation of Japan Automobile Workers' Unions) under Dōmei and Denki Rōren (Japanese Federation of Electric Machine Workers' Unions) under Chūritsu Rōren. Soon, however, it became one of the main streams which represented the trade unions in Japan domestically, because it formed a link between the unions belonging to key industries such as steel and iron, automobiles and electric appliance manufacturing. In these same industries, the so-called Japanese type of management or Japanese-type labour management system has developed. Most of the workers or-

ganized in the IMF-JC-affiliated unions have been in service at such big companies as Shin Nittetsu, Toyota and Matsushita. Of course, other industrial sectors, even more than IMF-JC have been characterized by many enterprise unions, but IMF-JC has been a typical example of the power of big-business unionism. With few exceptions, the unions affiliated with IMF-JC have maintained cooperative relations with managements.

Some people argue that Dōmei and IMF-JC belong to the same stream – namely, to the right wing of the movement. Certainly, both of them have maintained friendly relations or partnership-relations with managements, and in the political and ideological sphere both of them have an anti-Communist attitude.

There have been, however, some important differences between them. The main stream of Dōmei attached importance to the social and political dimension of working conditions and job security. For example, the Japan Federation of Textile Workers' Unions (Zensen Dōmei), one of the major Dōmei-affiliated industrial federations, has been one of the most strongly centralized of all Japanese unions and has tried, to some extent successfully, to set a unified standard for such working conditions as wage levels or working hours. Zensen Dōmei also put pressure on the government to establish an improved unemployment insurance system and to develop job opportunities in each region. Politically Zensen Dōmei has strongly supported the Democratic Social Party and supplied many candidates for Parliament and local assemblies. Many of the high-ranking officers of Zensen Dōmei were professionals who had applied for posts in the union itself.

In contrast to Zensen Dōmei, the Confederation of Japan Automobile Workers' Unions (Jidōsha Sōren), one of the major IMF-JC-affiliated industrial federations, has had a decentralized structure and function. Wage levels, including fringe benefits as retirement allowances, and working time systems differ among the various companies concerned. Collective bargaining concerning these items has been carried out between the management and the union of each company. Each enterprise-based union has tried to secure the so-called "lifelong employment system" in its affiliated enterprise, or at least within the group of companies headed by the enterprise. Also some of the Jidōsha Sōren-affiliated unions have supported the Democratic Socialist Party and supplied it with candidates for Parliament. But many of the members or candidates of the local assemblies who come from unions have been independent of any party or political section. Sometimes they have acted in the regions not as the representatives of some party but as representatives of the companies. The high-ranking officers of Jidōsha Sōren (one of the members of Jidōsha Sōren) are ordinarily recruited from the leaders of the affiliated enterprise unions, and their salaries – at least a part of the amounts – are paid by

the original unions. They will return to jobs in the original enterprise-based union, or even to managerial posts in some cases, after a few years of their term. In short, compared to Zensen Dōmei, Jidōsha Sōren is a kind of joint committee of the enterprise-based unions in the automobile industry – a committee in which each enterprise-based union maintains its sovereignty.

The structures and functions of the IMF-JC-affiliated federations are not necessarily the same as those of Jidōsha Sōren. For example, the Japanese Federation of Iron & Steel Workers' Unions (Tekkō Rōren) has maintained stricter industrial standards for working conditions, including annual wage increases, working time systems and the retirement age, at least in the five major iron and steel companies. But the main feature of Jidōsha Sōren – that union activities are fundamentally based in each enterprise – may be seen in almost all unions belonging to IMF-JC or in the other unions affiliated with big enterprises. Thus we can distinguish the stream of large-enterprise unionism (e.g. Jidōsha Rōren) from the stream of Dōmei (e.g. Zensen Dōmei). Moreover, we will be able to get a view of the future Rengō by making such a distinction.

2. IDEOLOGY, FUNCTIONS AND UNIONIZATION

Why and how were these three streams of Japanese trade unions unified in Rengō? A long story characterized by some dramatic process may be necessary to concretely answer this question. But, to jump straight to the conclusion, three main factors had an effect on the process of the formation of Rengō. These factors are to some extent illustrated by a report entitled *The Direction of Rengō* which consists of three sections: *Platform*, *Basic Objectives*, and *Task and Mission*.³

The first factor is connected to the ideological phase. The *Platform* states: "We will continue the tradition of the free and democratic union movement." The term "free and democratic union movement", which was quoted from the original statement of the International Confederation of Free Trade Unions (ICFTU), has been a symbol of the right-wing trade unions in Japan, especially Dōmei. It was an important concession of the main stream of Sōhyō to accept the use of this term. More clearly speaking, the main stream of Sōhyō abandoned its class-struggle-oriented policy line in the course of the unification process. The transformation of the

³ The Japanese version of this report can be found in the proposals for the 2. general meeting of Rengō (Nihon Rōdōkumiai Sōrengōkai 1991a).

policy line was seemingly related to the *New Declaration* (Shinsengen) the Socialist Party of Japan adopted in 1986, which also abandoned the old quasi-Marxian policy.

Sōhyō's concessions were motivated by the fact that by the mid-1980s the unions in the public sector had become weak. Since the late 1940s the government continued to deny the right to strike for all the unions in the public sector and restricted the right to bargain collectively. For example, in the previous Japan National Railways (JNR), collective bargaining between the management and the related unions (the largest one was the National Railway Workers' Union, Kokurō) could not negotiate wage increases for employees. The total payroll cost of JNR was set by the government within the framework of the national budget, and the average wage level was also controlled by the budget. Ordinarily, wage increases for JNR employees were determined through arbitration by the Public Corporation and National Enterprise Labour Relations Commission, which in turn was guided from behind the scenes by the Ministry of Finance and/or the Ministry of Labour. This process contributed to the situation in which the unions in the public sector attached more importance to political confrontation with the government than to the gradual improvement of working conditions through labour-management relations.

The unions in the public sector continued to press for the recovery of the right to strike, and in 1975 they called a "general strike" in pursuit of this aim; the strike was carried out for a week but had no effect. After failure of the strike some of the unions involved, for example, the National Telecommunication Workers' Union (Zendentsu), adopted a more flexible policy in which they attached more importance to autonomy within the framework of the labour-management relations. (Zendentsu was to play the role of a bridge between the unions in the public sector and those in the private sector on the way to the formation of Rengō.) The other unions, however, for example Kokurō, continued to work politically against the government.

In the early 1980s the government, influenced by neo-conservatism adopted a programme of privatizing public corporations such as JNR and NTT. The aims of the privatization of the JNR were obvious: first, to decrease the financial burden of the government and second, to weaken the power and influence of the unions, especially Kokurō. Originally all of the trade unions in the public sector strongly opposed privatization, although many unions in the private sector, especially the ones belonging to Dōmei and IMF-IC, sympathized with privatization. Eventually, however, Zendentsu changed its attitude and finally accepted privatization of the NTT in order to secure the jobs of its members and to avoid the division of the corporation.

On the other hand, Kokurō continued to oppose the government. When the government enforced privatization with the division of JNR into six private regional railway companies in 1987, the managements of the new companies substantially reduced the total number of their employees and selectively dismissed the members of Kokurō. Under these circumstances, many Kokurō members left the union, and membership in Kokurō, which had been the most militant and ideologically representative of the left wing of Sōhyō, very quickly decreased from about 250,000 to about 30,000. Thus, through the process of privatization, the group of unions maintaining the tough left-wing line was decisively weakened, and as a result Sōhyō was able to change its policy or ideological line.

The second factor is concerned with the function of the trade unions. The *Task and Mission* section within *The Direction of Rengō* states:

We will vigorously push forward with our demands for policy and institutional changes with a view to elevating the living standards of workers as a whole while stepping up our 'power and policies' parallel to activities at the work force, industrial and community levels.

Here the term "policy" refers to the economic and/or social policies planned and operated by the government. Thus the sentence shows that Rengō has a strong desire to influence the policies of the government.

Needless to say, the fates of workers are largely dominated by the various policies or institutions concerned with, for example, economic growth, social security, education, housing, urban planning, environment, and the tax system. But, schematically speaking, the unions in the private sector, especially in the big companies, tried to resolve these issues within each company in a conventional way. In addition to wages or salaries, the level of which is determined by each company, policies concerning the lifelong employment system of job security, lump-sum retirement settlements, and company housing are set within each company. The first test of the unions' resolve to reform the social policy of the government was a one-day united strike organized by Sōhyō in 1973, demanding the improvement of the workers' pension system. Not many unions, however, participated in this strike. In those days many unions, especially those in the private sector, did not consider that the reform of institutions or policies at the state level was an urgent problem.

The economic situation after the first oil shock in 1973, and even more after the second oil shock in 1978, changed this attitude of the unions. The deterioration of the economic situation made it difficult for each company to observe the lifelong employment system completely. Managements began to pare their numbers of employees through various methods. Thus

the unions in the private sector began calling for improvements in, for example, the unemployment insurance system, which was redefined as employment insurance in 1975. Moreover, unions came to realize that a suitable level of economic growth at the national level was essential in order to preserve the lifelong employment system within each individual company. An industrial federation belonging to the IMF-JC stated even in the late 1970s that wages should change in accordance with the economic situation. Since the mid-1980s, under the pressure of the recession that resulted from the exchange-rate appreciation of the Yen, the unions commonly demanded that the government adopt an economic policy that would expand domestic demands through increasing wages and social benefits. In short, even large-company unionism, which mainly had functioned within each individual enterprise's framework, has been compelled to expand its activities to the social dimension in order to cope with the needs of its members. Thus, large-company unionism has also changed its policy line, although in a different sense from the left-wing unions.

Logically speaking, in order to influence government policy-making, the formation of a united and strong national centre of unions is essential. Thus from the functional point of view the formation of Rengō can be seen as a logical conclusion.

It is important to note in relation to this phase a possible change in the relationship between the unions and the political parties. *The Basic Objectives of Rengō* states:

We will bolster our 'power and politics' and cooperate with political parties which share our objectives, policies and demands, in an effort to attain full employment, stabilize commodity prices and improve the general standard of living, thereby realizing a welfare society brimming with vitality.

This sentence shows that Rengō did not intend to maintain an exclusive ideological relationship with one or another political party. In contrast to the programmes of Sōhyō and Dōmei, the terms "Socialism" or "Democratic Socialism" are not used in *The Direction of Rengō*. At the same time, however, it is essential for Rengō to establish some form of cooperation with the political parties in order to promote its "policies and institutions" for workers. At present Rengō leaves the decision to each federation about whether or not to support a political party and which party to support, so the old relation of Sōhyō with the Socialist Party and Dōmei with the Democratic Socialist Party has barely changed. But, as *The Basic Objectives of Rengō* suggests, the relation may change fundamentally within a few years.

Table 2: Unionization rate

Year	Rate (%)
1965	34.8
1970	35.4
1975	34.4
1980	30.8
1985	28.9
1990	25.2

Calculation based on the number of members of enterprise unions (*tan'i rōdō kumiai*) as recorded in the *Labour Union Basic Survey* (Rōdōkumiai kiso chōsa) and the number of employees as recorded in the *Monthly Labour Survey* (Maitsuki kinrō tōkei chōsa).

Source: Rōdō Daijin Kanbō Seisaku Chōsabu (1991b: 187).

The third factor is related to the stagnation of unionization. The *Task and Mission* section of *The Direction of Rengō* states that one of the federation is "to put a brake on the downward trend in the unionization rate of unorganized labour and boost the rate." This sentence reflects the atmosphere of crisis on the trade union scene. In fact, as Table 2 shows, the rate of participation in the union-affiliates has continued to decrease since the mid-1970s. Although Rengō's share among the unionized is largest in the history of the Japanese trade union movement, its share of all the employed is only about 15%. It is also logical to conclude that unification of the existing unions may be the best way to increase their power.

3. STRATEGIES FOR THE DEVELOPMENT OF A LABOUR STANDARD: THE REDUCTION OF WORKING HOURS

As mentioned above, the strategies of Rengō are expressed by such terms as "free and democratic trade union movement", "power and policies", and "unionization". At the same time, as Rengō is a national centre of the unions, it stresses the improvement of working conditions. The second of the *Basic Objectives of Rengō* is "achieving a relaxed way of life based on due regard for humanity, by maintaining better working conditions, including higher wages, shorter working hours and better working environments". Here I would like to discuss how these objectives, especially the one concerning shorter working hours, will be pursued by the unions. There are two reasons why I take up especially the matter of working

hours. First, moderate wage increases have been built into the national economy in Japan, so they are not necessarily an issue of vital importance between labour and management. Second, we will be able to see the process and the problems involved in the formation of a labour standard more clearly in the case of shorter working hours than in the case of wage increases.

It is a well-known fact that in general working hours in Japan generally are much longer than those in other developed countries. In response to criticism from abroad, working hours reduction has become a national topic of discussion. In fact, a 1987 amendment to the Labour Standards Law reduced legal maximum working hours from 48 hours a week to 46 in 1988 and again to 44 in 1991. This amendment was expected to introduce a new stage in the working time situation in Japan. And in fact, as Table 3 shows, average working hours decreased slightly from 1988 to 1990, mainly as a result of the amendment. In particular, the number of workers with a two-day weekend has increased rather rapidly since 1988. But the amount of reduction has not yet reached the level at which the structure of the working time system has been qualitatively changed. The Ministry of Labour and Rengō had planned to shorten annual total working hours (including overtime) to about 1800 hours by 1992 or 1993. At present, however, the realization of this goal is regarded as very difficult. There are many obstacles standing in the way of the reduction of working hours. For example, managers in general are opposed to the shortening of working hours, although nowadays they have been compelled to reduce hours to some extent because of the difficulty in attracting workers. Thus a big question is how the unions deal with these obstacles.

Table 3: Annual working hours

Year	Hours
1975	2064
1980	2108
1985	2110
1987	2111
1989	2088
1990	2053

Annual working hours including overtime in undertakings with 30 and more employees.

Source: Rōdō Daijin Kanbō Seisaku Chōsabu (1991b: 80).

The following policy statements, from Rengō documents⁴, show the federation's attitude toward reduction of working hours, and also shows to some extent its attitude toward the development of a labour standard in general:

1. Reduction of working hours is the "course for Japan to follow".
2. Opposition to management's argument of "control of total personnel costs".
3. Revision of the Labour Standard Law.
4. Legislative action to promote the introduction of shorter working hours for smaller enterprises.
5. Reduction of working hours for public service employees.
6. A five-day week for schools.

We can see in these documents some features of the union strategies related to the reduction of working hours.

First, the goals to be pursued by the Rengō-affiliated industrial federations are not concretely stated, although as a general goal the document states: "Realization of a 40-hour workweek and attainment of 1,800 annual working hours is a matter of course for Japan as a developed economy." This lack of clear goals is due to the idea that Rengō and its affiliated industrial federations should have different functions: the federations have autonomy or "self-determination" in such matters as wage increases and shorter working hours, while Rengō should concentrate its energy on "policies and institutions". The role of Rengō in the wage struggle is limited to "adjustments", including the establishment of a general approach to demands and information exchange activities.

This philosophy means that Rengō does not necessarily have an effect on the structure of industrial relations at the industry or firm level. Rengō may set guidelines for unions' demands regarding wages and working hours, but the federation does not yet have the power to establish standards for working conditions, nor do the industrial federations with a few, but important, exceptions. In general, collective bargaining is still decentralized, and working conditions are determined at the level of each enterprise or firm, without clear social standards.

Second, the document gives some key concepts involved in negotiating for shorter working hours. It states that management should voluntarily suggest systematic steps for introducing shorter working hours in accordance with a "national consensus", and that "Rengō will maintain its firm stance until working hours in Japan reach international levels". For Rengō

⁴ These documents are published in Nihon Rōdōkumiai Sōrengōkai (1991b).

a “national consensus” and “international levels” (or the “fair international labour standards”) are the key words.

This means that Rengō intends to promote shorter working hours in response to pressure from public opinion at home and abroad rather than using its own power. Rengō does not plan to call a unified strike to realize reduced working hours.

Third, Rengō attaches importance to the legislative and other activities of the government. The document states the following:

The management side has remained negative throughout toward the revision of the Labour Standards Law. This attitude is based on arguments that decisions on working conditions should be left to labour-management negotiations and that law and administration should be kept to the minimum necessary. At present, however, most employees of medium and small enterprises have had their wages kept at the minimum levels prescribed in the Labour Standards Law. Therefore raising the labour standards is extremely important. Again, working conditions in Japan are at low levels in the light of international fair labor standards, making the revision of the Labour Standards Law imperative.

Improvement of the Labour Standards Law as well as the reduction of working hours in the public sector and the introduction of the five-day week in the school system may be expected to have an effect on the reduction of working hours in the medium- and small-enterprise sector. In fact, however, the unionized sector, including some of the unions of large enterprises, tends to rely on legislative and/or administrative methods.

In short, as the policy of Rengō for the reduction of working hours shows, when Rengō (or the unions in Japan in general) works to develop labour standards, it relies upon the “international level” as a goal, on the “consensus” or public opinion for power, and on legislative and/or administrative methods as instruments. Of course, for strategic development it is vitally important for the Rengō-affiliated industrial federations to strengthen their functions. In fact, in some industries, including, metal working and food, a new style of industrial federation is developing. But in general the weakness of the industrial federations has not yet been overcome. Under these conditions, Rengō’s strategies for the development of a labour standard will continue to rely on “international level” and “consensus”.

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APPENDIX

Names of Labour Unions, National Centres and Federations¹

<i>Abbreviated name</i>	<i>Complete name</i>	<i>English translation</i>
Chūritsu Rōren	Cūritsu Rōdōkumiai Renraku Kaigi	Federation of Independant Unions of Japan
Denki Rōren	Zennihon Denki Kiki Rōdōkumiai Rengōkai	Japanese Federation of Electrical Machine Workers' Unions
Dōmei	Zennihon Rōdō Sōdōmei	Japanese Confederation of Labor
Jidōsha Rōren	Nihon Jidōsha Sangyō Rōdōkumiai Rengōkai	Federation of Japan Automobile Workers' Unions
Jidōsha Sōren	Nihon Jidōsha Sangyō Rōdōkumiai Sōrengōkai	Confederation of Japan Automobile Workers' Unions

<i>Abbreviated name</i>	<i>Complete name</i>	<i>English translation</i>
Kinzoku Rōkyō	Zennihon Kinzoku Sangyō Rōdōkumiai Kyōgikai	Japan Council of Metalworkers' Unions or: International Metalworkers' Federation – Japan Council (IMF-JC)
Kokurō	Kokutetsu Rōdōkumiai	National Railways Workers' Union
Kokusai Jiyū Rōren	Kokusai Jiyū Rōren	International Confederation of Free Trade Unions
Rengō	Nihon Rōdōkumiai Sōrengōkai	Japanese Trade Union Confederation (JTUC)
Sōhyō	Nihon Rōdōkumiai Sōhyō Gikai	General Council of Trade Unions of Japan
Tekkō Rōren	Nihon Tekkō Sangyō Rōdōkumiai Rengōkai	Japanese Federation of Iron and Steel Workers' Unions
Zendentsu	Zenkoku Denki Tsūshin Rōdōkumiai	National Tele-Communication Workers' Union
Zenrōkyō	Zenkoku Rōdōkumiai Renraku Kyōgikai	National Trade Union Council
Zenrōren	Zenkoku Rōdōkumiai Sōrengō	National Confederation of Trade Unions
Zensen Dōmei	Zensen Dōmei	Japanese Federation of Textile Workers' Unions

¹ The English names of the trade unions mentioned often differ. Several translations are in use. In order to identify the unions clearly, the complete and the abbreviated Japanese names are included in this list. Complete names and English translations have been drawn from the quoted sources.

Sources: Japan Labor Bulletin (May 1, 1991: 11–20), Orientaru Ekonomisuto Henshūbu (1985: Appendix 27–31).

CONCLUDING REMARKS

THE JAPANESE PRODUCTION MODE AS MODEL FOR THE 21ST CENTURY?

Helmut Demes

ABSTRACT

After a brief summary of some of the results of the other articles in this reader the question is raised whether or not the *lean production mode* will be the dominant mode of production worldwide in the 21st century, as is predicted by the MIT Research Team. With reference to the articles in this publication and certain developments and discussions in Japan, some trends indicating a "Europeanization" of Japanese practices of organizing labour and production are elaborated. In spite of the growing fear of a "Japanization" of Western industrial relations through the introduction of Japanese production systems, in some aspects there might actually be a "Europeanization" of Japanese practices. International pressure, environmental problems and the growing scarcity of labour as well as social changes are contributing to (future) changes in the Japanese production mode.

CONTENTS

1. New impacts on industrial relations in Western countries: Towards Japanization?
 2. Lean production in Japan: Some neglected features
 - 2.1. The discretionary power over the work force
 - 2.2. Dualistic economic structures
 - 2.3. Intra-plant rationalization strategies
 - 2.3.1. Technological rationalization strategies
 - 2.3.2. Work content and working teams
 3. Problems related to lean production in Japan and responses by the government and enterprises
 4. Summing up: Towards Europeanization?
- Bibliography

Taking into account recent discussions of lean production, with reference to the contributions included in this volume¹ and some recent developments in Japan, this paper examines whether the authors of the book on lean production (Womack et al. 1990) are justified in their assumption that a production system of that kind can be a model for the 21st century. The paper is divided into three parts. The first one is an account of new influences on industrial relations, mainly in Western countries; the second deals with some factors of industrial relations in Japan which are closely linked to lean production, as well as structural particularities of the Japanese economy and society. The third part is a discussion of problems caused by lean production in Japan, which, the author contends, will lead to changes and "Europeanize" Japanese production concepts.

1. NEW IMPACTS ON INDUSTRIAL RELATIONS IN WESTERN COUNTRIES: TOWARDS JAPANIZATION?

New rationalization and production concepts, partly inspired by systems developed in Japan, are becoming increasingly popular in Western countries. At the same time a rediscovery of human resources is taking place, since rationalization reserves are mainly to be found in the organization of the whole value-adding process and of work itself. Automation based merely on technology seems to have reached its limit.

In contrast to the very optimistic picture painted by the MIT group (cf. Womack et al. 1990: 100ff.), not all employees and companies are winners in this rationalization process, which encompasses the whole value-adding chain. Altmann, Sauer and Doleschal confirm this in their contributions. Among the employees a polarization becomes obvious. A group of core employees, the "problem solvers" within the context of new production concepts, becomes increasingly significant as other lowly qualified employees lose importance and are marginalized (cf. Sauer).

The reorganization of the supply system creates a new power constellation between the companies, on the one hand strengthening the market position and the potential of those suppliers of important components, and on the other hand leading to a loss in entrepreneurial sovereignty of the suppliers of parts who are linked to just-in-time systems. A hierarchy emerges, with the market mechanism regulating the transactions partly replaced by power relations.

¹ A more comprehensive summary of the proceedings can be obtained by reading the abstracts to each article.

Naturally, this strongly affects industrial relations. For example, one part of the dual system of interest representation in the Federal Republic of Germany (F.R.G.), i.e., the workers councils, is deprived of some of its influence. In dependent enterprises on the supplier chain, the workers council does not have a counterpart to bargain with, as the management itself in these enterprises has lost its entrepreneurial sovereignty. Many issues which should legally be dealt with between works councils and management are *de facto* decided by dominant buyers. Both trade union and legal counterstrategies to this situation are still in their early stages.

Internationalization, too, has several far-reaching consequences for industrial relations. Supra-national economic integration undermines parts of the national systems of labour relations. Supra-national regulations of labour standards have only been developed to a certain extent, as Bosch shows by analyzing the case of the European Community. High labour standards in the more developed countries face the pressure of competition from other countries as protecting borders are abolished. Minimum standards have to be agreed upon. These should be set below those levels achieved in the most developed countries in order not to hinder the development chances of the industrially less developed countries, but above those in the least developed countries to prevent undercutting competition. Such a far-reaching Social Charter has yet to be formulated on a Europe-wide level. But a few enterprises have already concluded agreements with their employees to form supra-national bodies for workers' interest representation (cf. Altmann, Bosch, Jürgens).

In his contribution on the role of the International Labour Office (ILO) in the creation of internationally obligatory working standards, Sengenberger points to the fact that these do not – as is sometimes proclaimed by economists – necessarily represent a competitive disadvantage, but on the contrary can be a productivity advantage by, for example, contributing to social peace and by their cost, which also provide an incentive for companies to rationalize. In addition, the setting of minimum standards could also be coupled with international trade, and non-compliance could, perhaps in the framework of GATT, be sanctioned. Thus undercutting competition could be prevented.

Another form of internationalization is the expansion of enterprises abroad. Japanese foreign direct investment has particularly increased in the last two decades. These foreign subsidiaries of Japanese companies are often viewed as experimental ground for the transferability of new, Japan-oriented production concepts, an aspect which was central to some of the contributions.

Industrial relations and work organization concepts are not as easily transferable as production concepts. In their empirical analyses

Kumazawa and Deutschmann reach the conclusion that in the Federal Republic of Germany and in England prevailing practices of industrial relations, as well as legal and economic structures, impede transfer, and that the discretionary power of the enterprise over the labour force is limited. This also means that the deployment of labour cannot be managed as flexibly as in Japan. This also applies to other countries, as Jürgens proves with his example of Japanese car manufacturers in the U.S. and as Nomura shows on the basis of his study on the electronics industry in various countries in Asia and Europe. Central features of personnel management, such as the seniority system and enterprise-level union organization, seem to be difficult to introduce in these countries. Different structures of the labour market, which are not as segmented, greatly hinder the development of internal labour markets, which are characteristic in Japan for core employees and closely connected to personnel systems based on seniority and company-centred interest representation systems.

However, in the area of the transfer of the organization of work, Japanese companies are successful to some extent, as Berggren and Björkman impressively show in their paper on Japanese auto transplants in the U.S., but the transfer is not achieved without negative effects on the quality of working life. Further reference will be made to this in a later section.

In the organization of supply systems there also seem to be limits to the transfer of Japanese practices. In his paper, Sei elaborates on the fact that the market is still stronger as a mechanism of price determination in Western countries and that the striving for entrepreneurial independence leads to other forms of cooperation between buyers and suppliers. Some observations in Sei's paper regarding Europe may already have been overtaken by reality. Doleschal and Sauer point out that some large German purchasers of parts and components are making considerable efforts not to become technologically dependent on their suppliers or to reduce the existing dependency. They might then be in a position to bring about control and price determination mechanisms beyond those of the market, similar to those in Japan.

Sei's paper is also interesting in regard to another aspect of cooperation between suppliers and buyers in Japan – a mechanism which greatly encourages innovation. Suppliers can only make a profit in the medium term if they are successful in reaching a higher value-added, for example by the modification of components and other innovations.

The precondition for the process of price determination analyzed by Sei is a network-like system between the various departments of suppliers and buyers, which is also described by Ikeda in his contribution. Smooth coordination between them is secured by the flexible deployment of the work force. Technicians and engineers often gain work experience in

different departments – for example, in product and production technology development as well as in procurement – which facilitates cooperation between the individual departments. In Japan, even exchange of personnel between companies can be observed. One aspect of this flexible deployment of the work force is covered in the paper by Ernst, which examines the careers of technical specialists in development departments in Japan, the U.S. and Germany. In Japan the assignments of specialists to the development departments are much shorter; while in both the other countries specialists usually stay in one department for most of their careers, Japanese engineers are rather quickly transferred to other departments. These varying career paths may be one of the problems in the transfer of Japanese supplier systems to other countries.

Nevertheless, even in Japan the supplier system is undergoing some changes, which are more closely analyzed by Ikeda. He points out that in some cases the buyers will no longer have insight into the whole development process of parts and components. Thus, this process becomes a “black box” for the buyers. Such knowledge is, however, a precondition of the effective functioning of cost-based price determination. In these cases it will be interesting to see the resulting new mechanism of coordination between supplier and buyer.

Hiramoto regards the differing labour market structures – that is the non-existence of a low wage rate in the supplier industry – as a reason why a transfer of some production processes to suppliers in Japanese companies abroad is not profitable. Make-or-buy decisions (or, in other words, the degree of “learnness”) continue to be determined by a much wider package of reasons, which include national particularities such as social and economic structures.

Jürgens concludes in his paper that there is no uniform internationalization strategy of companies. Analyzing the strategy of a German car maker compared to that of Japanese auto companies, Jürgens points out that the latter try to transfer production systems to other countries (cf. also Berggren and Björkman). The German company, however, aims at putting pressure on its domestic undertakings by the testing of new Japan-oriented production concepts abroad. It tries to transfer these concepts to its plants at home by mounting pressure via international inter-plant competition within the company. Therefore its strategy is directed from the periphery to the centre, whereas the Japanese companies aim from the centre at the periphery.

Summing up the developments in Western countries, it seems that the new production concepts are quite similar to those in Japan. Rationalization strategies covering the whole value-adding chain bring about a similar division of labour between companies. Industrial relations, however, do not converge to this extent, as different labour market structures, social tradi-

tions and institutions are an obstacle. The convergence of rationalization strategies does not, therefore, lead automatically to the same structures in industrial relations, as Altmann points out in his introductory article.

2. LEAN PRODUCTION IN JAPAN: SOME NEGLECTED FEATURES

Western discussion of new production concepts is currently dominated by one particular study. In 1990, under the title *The Machine That Changed the World*, Womack et al. published a book which received much attention in Western countries. The authors describe a production system based mainly on concepts developed at Toyota, in which goods of the highest quality can be produced flexibly and very efficiently, using a minimum amount of capital and other production factors. An important, if not the most important, element of lean production is a dynamic team of workers, which contributes to continuous improvement (*kaizen*) and the elimination of any slack. It is therefore rather surprising that in this study little attention is paid to these particular teams, their functions and working conditions. Only once, while contrasting lean production with "neocraftmanship" concepts in Sweden, Womack et al. point out that lean production causes stress for the employees, as all slack is eliminated. At the same time, however, they note that lean production gives the employees an intellectual challenge by promoting improvement activities such as *kaizen*. In this sense it offers advantages over the Taylorist production organization and "neocraftmanship" in Sweden (Womack et al. 1990: 100ff.). However, the authors neither make reference to the problems of employees which arise from this production concept nor attempt to figure out how employees are kept made working hard in such a production system.

Thus, in the following, with reference to this book's papers and the author's own current research work, the attempt will be made to explain some aspects of lean production in Japan and its effects on employees.

In Japan the book of Womack et al. was given a cool reception. Very soon after the publication of the English original, a Japanese translation was issued in 1990². But in general this book generated less interest here than in Western countries. This is also obvious in the bibliographies of the authors represented in this book. In the first three parts, of the six contributions by Japanese authors only one cites this study, while it is mentioned in five of the six contributions by Western authors.

² According to the publisher (Keizaikai) 20,000 copies of this book were sold which is a moderate edition for a successful economic book in Japan. The translation is entitled *Rin seisan hōshiki ga sekai no jidōsha sangyō o kō kaeru*.

Lean production was developed in Japan under certain socio-economic conditions. The most significant conditions include the lack of capital and currency restrictions which existed in the early postwar decades, the specific structure of enterprise groups (*keiretsu*), which partly arose from the conglomerates (*zaibatsu*) of the prewar era and which are closely linked with the continuing problem of dual economic structure, the lack of skilled employees and the notoriously bad quality of Japanese industrial products. In addition, the downfall of the trade union movement following hard struggles in the 1950s and early 60s, which all ended with in the unions' defeat, most certainly contributed to the smooth introduction of these new production concepts. The management had a free hand. The trade unions had scarcely any alternative to cooperate as a "junior partner". In the 1970s, in the first great postwar recession in the wake of the Nixon shock and the oil crisis, many aspects of lean production, under the heading of "slim-down management" (*genryō keiei*), gained increasing popularity even beyond individual enterprise groups (cf. Hiramoto 1984). Since the 1980s this new style of management has been discussed abroad as "Japanese management" or "Toyotism" (e.g. Dohse et al. 1984), but, of course, with slightly different emphasis.

Considering the long history of lean production, it is not surprising that in Japan the book of Womack et al. was not considered new and revolutionary. The history of its development already demonstrates some typical structures of Japan, which do not exist in this form in other countries.

2.1. The Discretionary Power over the Work Force

In lean production, there is a continual attempt to eliminate any form of slack. Buffers such as stock-keeping and relief work forces are reduced. Employees, who are organized in teams, are permanently under stress. Due to the lack of buffers, production frictions can only be resolved by increasing the work load of employees. In order to be able to do this, companies must have discretionary power over the work force. In Japan several strategies were developed for this purpose.

- a) The size of the work force can be increased in the short or medium term by the use of temporary and unstable forms of employment such as borrowing employees from dependent companies or employing part-timers. These unstable forms of employment are still the most dominant on the Japanese market (cf. Tokunaga and Tokunaga 1984; for groups of female employees see Ōsawa in this volume).
- b) Short-term bottlenecks can be resolved internally by the transfer of personnel from other sections (*ōen*). Due to the specific skill-formation system in Japan, based on on-the-job training in specific skills to perform

single jobs and not on the training of general skills to enable an employee to perform on a wider range of jobs (cf. Demes 1992), the strategy of internal short-term transfers or employment of temporary staff is limited.

- c) As the first two measures are not sufficient to cover the need for employees either quantitatively nor qualitatively, companies in this production system have to rely on the extensive use of available core workers in order to be able to fulfill production plans. Thus, overtime is a necessary element of lean production.

According to an opinion poll by the Ministry of Labour, the most important reasons for overtime are the lack of an adequate work force reserve and the organization of the supplier chain, not a long-term shortage of labour.³ Another survey of the Confederation of Japan Automobile Workers' Unions points in the same direction. More than 80% of all production workers agreed that too few workers were in their workshops to handle the workload (Jidōsha Sōren 1990: 32). The auto industry with its well-developed lean production system was at the top of all industries with almost 400 (paid) overtime hours per year per blue-collar employee in 1990 (Rōdōshō 1991: 40).

Another hint that long overtime hours are linked to the lean production system is the problems reported in Japanese companies abroad (Berggren and Björkman, Deutschmann). Due to restrictions these employers cannot enact overtime as freely as in Japan. The lean production concept is functioning in Japan on the condition that there is a strong discretionary power over the work force. Overtime can largely be assigned without limits and at very short notice.

How far the discretionary force of companies over the work force extends can be illustrated with a few recent examples:

- According to a recent survey, in only 4% of all transfers within the company involving a change of location was the agreement sought of those concerned. In the remaining cases the social situation of the employee often is partly taken into account or his opinion is asked, but the final decision still lies with the company (Japan Times, Sept. 9, 1992).

³ Employees were asked why they thought overtime was not reduced (Rōdōshō 1991: 42; three of 10 items could be selected). The main reasons were:

1. The work cannot be done within the contractual working hours (49.8%).
2. The work burden varies greatly (27.2%).
3. Services for customers and (sub)contractors (26.1%).
4. There is no time leeway in contractors' orders (21.6%).

Only in the fifth position was a labour shortage mentioned, and the resulting difficulty of recruiting (13.5%).

- It was only when the regional Labour Standard Bureau forbade the practice that it came to light that Toyota had forced its employees to take their annual holidays when production had to be limited due to a fall in demand. Employees working on alternate shifts were obliged to take a day's holiday every Saturday as on these days the night-shift was cancelled (Japan Times, July 29, 1992).
- After over 20 years of litigation, the Hitachi company recently won a case in the High Court of Justice in which it had fired an employee who refused to do overtime assigned at short notice, as he had a private engagement. The agreements negotiated between the company trade union and management were so inexplicit – a very common practice in Japan – that the company could always demand overtime at short notice as it required (Sugeno 1992).

The outcome for employees of such long and strenuous working hours are described very well by the answers to another item of the survey by the Confederation of Japan Automobile Workers' Unions quoted above. Only 4.7% of all male respondents did not answer to be "often exhausted"; 23.5% said that they recover by the following day, but more than 70% stated that they are permanently exhausted or that they had not overcome their exhaustion by the next working day (Jidōsha Sōren 1990: 33ff.).

2.2. Dualistic Economic Structures

A characteristic of new production concepts such as lean production is, as mentioned above, that efforts at rationalization are aimed at covering the whole value-adding chain beyond individual companies. Although some suppliers of components have gained some independence, as Sei and Ikeda outline in their papers, the dual economic structure and the dependence of subcontractors is still strong (for an overview cf. Hemmert 1992).

Tamai's contribution to this book, about labour relations in small enterprises in Ōsaka, gives evidence of this. Most of the small and medium-sized companies in Japan are still suppliers to larger companies. The downward shift in costs as well as in demand for flexibility implied in such a production concept is much more obvious in Japan than in other countries. This is only possible because up to now, within the system of industrial relations in Japan, labour standards which are valid for all companies have been developed only to a certain extent.⁴ Due to the organi-

⁴ The legally defined standards are generally not very high in Japan. There are often exceptions for small companies, such as in the area of social security benefits. Moreover, the state does not always enforce even these basic standards in small companies.

zation of employees on the company level – in small and medium-sized companies there are seldom trade unions at all – the standards set by negotiation vary greatly and in small and medium-sized enterprises wages, fringe benefits, employment security and other working conditions are basically much worse than in larger companies.

2.3. Intra-plant Rationalization Strategies

2.3.1. Technological Rationalization Strategies

The authors of the MIT study emphasize that lean production is not based on advanced automation of production processes. There are several indications that, concealed behind the various intra-plant rationalization concepts in Western and Japanese companies, there are basically different strategies of technological rationalization. The first results of a study of work organization in the assembly of videotape recorders (VTR), which the author carried out with two Japanese colleagues, illuminate this point.⁵ In the Japanese companies that were investigated, the technological layouts of the assembly lines were different. Huge efforts had been made to produce large quantities of VTRs by closely linking all production steps and individual workplaces and avoiding any buffers between them. The lines were significantly longer, and individual jobs on the line had to be performed at very short cycle times. Maintaining flexibility in production volume as well as meeting production targets even in case of problems could generally only be achieved by the flexible use of the work force under rigid conditions. Production technology itself did not contribute to flexibility.

A company in Germany, also Japanese-owned but whose production technology is dominated by local staff, developed to a much greater extent a flexible production technology for the production of a largely identical product:

- buffers were created between workplaces,
- parallel workplaces with the same job content were introduced,
- some production steps were decoupled by introducing sub-assembly lines, and
- considerable efforts were made to easily adjust the lines to different manning levels when required.

This flexibility has several advantages. On the one hand, it creates leeway for the company with regard to product mix and production volume. On

⁵ The complete case studies by Nakamura Keisuke, Nagano Hitoshi and the author will be published by the German Institute for Japanese Studies in 1993.

the other hand, disposable time is created for the staff, and differing speeds of work as well as requirements for flexible working time and hours can be better dealt with.

In the Japanese context such an organization of production contains a considerable amount of *muda* (waste). The elimination of any slack in the Japanese factories necessarily leads to strict organization of work, with the hidden problems described by Berggren and Björkman connected with the military-like discipline which is necessary to keep the production process running smoothly.

2.3.2. Work Content and Working Teams

It is remarkable that in Japanese companies the cycle times in production are short compared to those in many European countries. The frequently described multi-skilledness, as Kumazawa also notes in his contribution, is often reduced to line-ups of simple, fool-proof jobs. The organization of direct production thus frequently has a super-Tayloristic character. The above-mentioned study on video-recorder production shows that in the companies in Japan most of the simple assembly work was performed by temporary staff, while more complicated work such as adjustment and control, and all indirect work, was done by permanent employees. Permanent staff carried out only simple tasks at the beginning of their careers, or rather took over these jobs temporarily as flexibility reserves according to need. Overtime was required from them. Only very few employees performed this very monotonous and restrictively organized work long-term.

This form of intra-plant division of labour is closely linked with the multi-layered labour market described by Tokunaga (in this book and 1984). The volatile lower segments of the labour market allow the company to hire (and fire) unskilled workers at short notice and to adjust the labour force to production requirements. Core employees likely submit themselves to this regime in return for being offered career perspectives. In the case of video-recorder production, after a while core workers would be transferred to indirect production (maintenance, repair, quality control) and/or to the first-level supervisory positions. Only their work content widens as their careers progress. They are the centre of the dynamic teams in lean production.

The term "team" or "work group" in Japan has a different meaning than in Western countries. The competence of the group lies in the improvement of the process and the setting of new standards according to given rules. They are under the strict supervision of group leaders, who are not elected by the members but selected for promotion by manage-

ment. The more democratic forms of work organization, discussed in Western countries under the catch-label of the semi-autonomous groups, have a different character (Jürgens 1992). In Japan participation within this hierarchical structure seems not to be as well developed as is often assumed. According to a survey by the Japan Productivity Center, among 30,000 trade union members who were asked about their job satisfaction, the complaint "the opinion of employees is not sought to a great enough extent" ranked very high among items expressing dissatisfaction.⁶

These few examples show that the impact of lean production in Japan is coupled with disadvantages for the employees. Lean production is embedded in a particular structure and based on the discretionary power of the management over employees. The following section discusses whether this concept can really be the production concept for the 21st century. Some "symptoms of changes", as Tokunaga labels them in his contribution, can be identified.

3. PROBLEMS RELATED TO LEAN PRODUCTION IN JAPAN AND RESPONSES BY THE GOVERNMENT AND ENTERPRISES

In the course of Japanese history profound changes in society have often been brought about by external pressure (*gaiatsu*). Today this pressure is again increasing. Japan's growing surplus in foreign trade and her dominance world-wide in some industries is a source of conflict with other countries. In particular the U.S.A., but also the countries of the European Community, not only are increasingly pressing for better access to the Japanese market and the protection of industries endangered by Japanese exports – or rather by products produced by Japanese companies abroad –, they also are calling for the structural adaptation of the Japanese economy itself. The best-known example of this is the Structural Impediments Initiative (SII). The growing fear of being excluded from the large, newly emerging integrated economic zones in North and Central America and Europe seems to be leading to a turnabout in some areas of politics in Japan. In the summer of 1992 a new economic plan with the title *The 5-year Economic Plan: Sharing a Better Quality of Life Around the Globe*⁷ was publish-

⁶ Those questioned could rate a total of 25 items covering employment and working conditions. A dissatisfaction index ranged between -3 (dissatisfied) and +3 (satisfied). With a score of -0.68, the above item ranked third (Nihon Seisansei Honbu 1990: 45).

⁷ This English version of the Japanese title is from an unpublished translation by the Economic Planning Agency. It seems to have been translated with foreign

ed by the government. The plan aims at an increase of employees' share in the national wealth and at the improvement of living conditions. In conjunction with this, it is recommended that working hours be reduced to 1800 hours annually within a couple of years. As such a policy goal had been announced even earlier – the Ministry of Labour proclaimed this goal of 1800 working hours per year as long ago as 1988 – it could be regarded as mere propaganda. However, from the measures which have already be partially carried out, it can be concluded that in the long term working hours will be reduced significantly. In addition to a further reduction in the statutory standard working hours and an increase in the minimum overtime remuneration⁸, both regulated in the Labour Standards Law, the Ministry of Labour is pushing for new shift models, which do not favour overtime⁹, and for other organizational means in order to reduce overtime including the so-called "*sābisu-zangyō*" – the non-paid overtime. Within the framework of administrative guidance, advisors of the regional Labour Standard Bureaus are to visit all companies. As a supporting measure in society in general, the government also plans to gradually introduce the 5-day week at schools, in order to make it possible for parents to have more contact with their children; this will also create pressure by the increased need for time to look after them (Keizai Kikakuchō 1992: 9). Thus it is to be expected that in the long term companies will have to accept shorter working hours.

It is also significant that there has been an increased change in awareness of the population due to the public campaign for a rise in the standard of living and an extension of free time. An abundance of opinion polls show that free time in relation to work is being awarded increasing priority. In 1991, in a representative poll, the Prime Minister's Office found that over 60% of the total population and over 70% of 20-to-34-year-olds would like a reduction in working hours. In 1986 the rate was still below 50% (Sōrifu 1987: 7 and 1992: 6). Needs also changed accordingly. Since the mid-1980s, the desire for consumption has been waning while the desire for free time is increasing (Sōrifu

readers in mind. The Japanese (Seikatsu taikoku 5 nenkan kikaku – chikyū shakai no kyōson o mezashite) is closer to the following translation: *Achieving the Status of a Quality-of-Life Major Power: Towards Coexistence with the Global Society.*

⁸ As regulated in the Labour Standards Law (Art. 37), overtime payments are still low and fixed at 125% the hourly wage. Even in reality enterprises seldom pay higher rates (Rōdōshō 1991: 52).

⁹ Between the end of the day shift and the beginning of night shift are usually several hours which are frequently used for overtime. The Ministry is urging companies to revise the scheduling of shifts.

1990: 46). This also effects working life. In an opinion poll by the Japanese Federation of Electrical Machine Workers' Unions, over 70% of those questioned gave family life and free time precedence over work. As in the other polls there was also a strong age correlation. The younger the employees, the more preference they give to family life and free time over work (Denki Rōren Seisaku Chōsabu 1990: 24f.). Thus it is likely that in the long term companies will no longer have employees at their disposal to such a strong extent, because the acquiescence of the work force is diminishing.

With regard to environmental policies, there also seems to be a change in course. Although, even by international standards, Japan has carried out a very successful environmental policy, particularly in the 1970s after the great environmental scandals, new pressure is mounting due to the increasing vehicular traffic and quantities of waste which are almost too great to cope with.

By international standards, the traffic infrastructure in Japan is very poorly developed. Due to high costs and shortage of space in the distribution system and the well-developed just-in-time (JIT) delivery system, the volume of traffic in 1989 had risen considerably compared to 1975, while the average load quantity per lorry dropped (Un'yūshō Kabutsu Ryūtsūkyoku 1991: 27, 61). According to a forecast of the Ministry of Transport, up until the turn of the century there will be a further increase of over 20% in the total volume of delivery transport. Neither the infrastructure nor the labour market can cope with such an increase. The Ministry of Transport is now encouraging new logistical concepts, which rely on a better use of capacity of lorries and switch to more environmentally friendly means of transport such as ship and rail. Corresponding changes in the present JIT system are indispensable, i.e., there will be larger stock-piles and less frequent delivery-cycles.

The transport problem is aggravated by the employment situation: Although the working population will increase slightly until the year 2000, the number of young workers this sector heavily relies on, is already falling. If working hours in the transport business could be reduced to the proposed 1800 hours per year by the year 2000 (present working hours including overtime are on average more than 2800 hours¹⁰), a further 800,000 employees would be necessary, representing an increase of more than two-thirds (Un'yūshō Kabutsu Ryūtsūkyoku 1991: 4). This would mean that almost every twelfth employee in Japan would be a transport

¹⁰ Studies in this industry based on smaller samples revealed even longer working hours, more than 3000 hours per year (Zennihon Torakku Kyōkai 1990: 216).

worker. Thus the lean production system would be faced with an even more inflated service sector.¹¹

Another environmental problem is the amount of waste also caused by the product cycles, which are growing shorter and shorter not only in the car industry but also in many other industries. In many cases these products feature no remarkable innovation, but merely further marginal developments and design changes. In some sectors of the electronics industry, the cycle of new products coming onto the market has fallen to three months (Japan Times, April 9, 1992). This trend toward a "wasteful" society has now come under criticism. The Ministry of International Trade and Industry (MITI), for example, has suggested that the product cycle should not be reduced any more and that it should even be extended in some cases (Nikkei Weekly, Feb. 29, 1992). Even here there is a close link to working conditions. Frequent changes of products led to working hours much longer than average, particularly in product development and other indirect departments of companies. The demand for a lengthening of product cycles has received support not only from the MITI, but also from the trade unions and the Ministry of Labour.¹²

What is new in these developments is that a change in the strategies for the setting of working standards is becoming apparent. In the past, government policies were more strongly aligned to the formation of minimum standards, and differences in opinions between ministries blocked improvement initiatives. Moreover, even existing standards have not been enforced in all cases. Government policies today seem more to be characterized by the active setting of higher standards. The interests of the different ministries and also of the trade union movement seem to converge. Although the umbrella organization of the trade unions (Rengō) is still weak, as Takagi notes in his paper, with political support, its influence could be extended and thereby contribute to an improvement in working standards on the national level. This would have a great impact on the dual economic structure and lead to changes in subcontracting systems.

Even with these new developments on the part of the companies, however, very different positions are still represented. An example of this is the debate between the vice-president of the Keidanren (Federation of Economic Organizations), Morita Akio of Sony, and the president of the

¹¹ An overview discussion of the future of JIT in Japan is given by Kameyama (1991).

¹² For example, Rōdōshō Shokugyō Anteikyoku (1991: 107) and the discussions at the Confederation of Japan Automobile Workers' Unions' conference on Feb. 2, 1992.

Nikkeiren (Japan Federation of Employers' Associations), Nagano Takeshi of Mitsubishi Materials. While Morita, shortly before the annual wage negotiations in 1992, maintained that employees should receive a larger share of the national wealth and therefore called for wage increases, a shortening of working hours and other measures, Nagano argued that wealth should be increased by further growth and not by a redistribution of present wealth, when Japanese employees are already earning the highest incomes worldwide¹³. Regardless of the controversy, which is being closely followed in public, many companies are already reacting to the pressure of the labour market as well as the beginning changes in policy and are modifying their management and production systems.

Although the present economic crisis is having a dampening effect on the demand for labour, demographic patterns are clearly showing that after a slight increase in the 1990s, a rapid decrease in the labour force is to be expected. In addition, the age structure of the labour force is already shifting. The number of older employees as a proportion of the labour force is rapidly expanding. Companies are in a fierce competition for young employees and try to attract them by offering better working conditions. This seems to apply even more to the pioneers of lean production in Japan. Despite offering high wages to its employees and being economically the most successful company in Japan, Toyota is not highly regarded as an employer. Among university graduates in technical subjects, for example, it ranges only on the 27th position on the list of most popular employers, behind such economically less successful companies such as Nissan (17th place) and Honda (7th place) (Economisuto 1992). Honda is, perhaps not incidentally, the car manufacturer with the shortest working hours in Japan.

Some car manufacturers have already drawn their conclusions and are trying to create better working conditions in their new factories in order to attract employees. Similarities can be drawn with European rationalization strategies. In the modernized or newly built factories of some car manufacturers (Mazda in Hōfu, Nissan and Toyota on Kyūshū, and in Tahara on Honshū) great emphasis is put on the improvement of working conditions and working environment.¹⁴ They all have a high degree of automation of the assembly lines, whereby physically exhausting work

¹³ For this controversy, cf. the comments of Moriguchi (1992) with reference to the consequences for international trade and competition and Miyazaki (1992) from the perspective of consumers. A summary of the discussion between Morita and Nagano was published in *Asahi Shinbun* (March 10, 1992).

¹⁴ The following information has been drawn from newspaper reports (Nikkei Weekly, July 7, 1992; Japan Times, July 20, 1992, and Feb. 4, 1992).

has also been automated. Chassis of cars are placed on pallet systems, which makes it possible to split up assembly lines and to create sub-assembly lines with differing cycle times. Ergonomic aspects have been taken into consideration for the first time¹⁵; individual pallets can be stopped and chassis positions be changed, which ameliorates strenuous working postures considerably. Working conditions are further improved by noise reduction and longer cycle times. More buffers and storage units have been introduced, and the whole factory floor has been enlarged.

In addition, the shift system is to be changed. Instead of leaving a few spare hours between shifts as a buffer, which would usually be used for overtime, the shifts will in future follow on from each other, which automatically leads to a reduction in overtime. The working environment is likewise being improved, with canteens, sport facilities, etc. According to newspaper reports, Toyota and Nissan have invested 50–100% more in their new production sites than in the “normal” factories.

In many respects the new Japanese companies seem to be planned to run counter to the concept of lean production. Many of the above-mentioned aspects were already being discussed in Europe several years ago, and were taken into consideration by many companies when “humanization of work” was put on the agenda. Nomura (1992) reports that even more drastic changes are being discussed at one of the major car manufacturers. For example, the concept of reducing *muda* (waste) by all means is to be revised, and a distinction between necessary and unnecessary *muda* is envisioned. This would take some pressure off the employees and give them more disposable time. Taking all these changes ahead into consideration, the Japanese production system seems to be on the verge of change.

4. SUMMING UP: TOWARDS EUROPEANIZATION?

Rationalization strategies in Japan and other countries are converging to some extent while industrial relations remain divergent. Analyzing some recent trends in Japan, signs for change appear to indicate trends toward (northern) European concepts of intra-plant rationalization strategy. However, it is still uncertain whether this tendency will increase and a profound transformation will occur, whether the almost unlimited discre-

¹⁵ With regard to the ergonomic layout of workplaces, most Japanese car factories are under-developed compared to those in other countries. Overhead work, work while the production lines are moving, and other forms of work under bad conditions are common.

tionary power of companies over their employees will finally diminish, and whether Japan will really develop from a major industrial power to a major power in terms of quality of life. The recent economic crisis will at least delay this development. However, lean production Japanese style will probably take on a different character, as its acceptance among employees is falling. If, in addition, the strategies of unions and the government which aim at the improvement of labour standards at national level are successful, then it can be expected that the dualism in working conditions between large and small companies will dissolve to some extent, with profound consequences for the division of labour between companies. It is thus questionable whether lean production, in the form in which it exists in Japan at present, can really be a model for the 21st century. Japan seems to be bidding it farewell.

Even if the discussion about new impacts on industrial relations is of great importance, in our strong fixation with the large industrialized nations we should not forget that the majority of the world's people are still fighting for material existence and the granting of basic human rights. It is through the contributions by Tokunaga and Sengenberger in this volume that we are reminded of this.

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